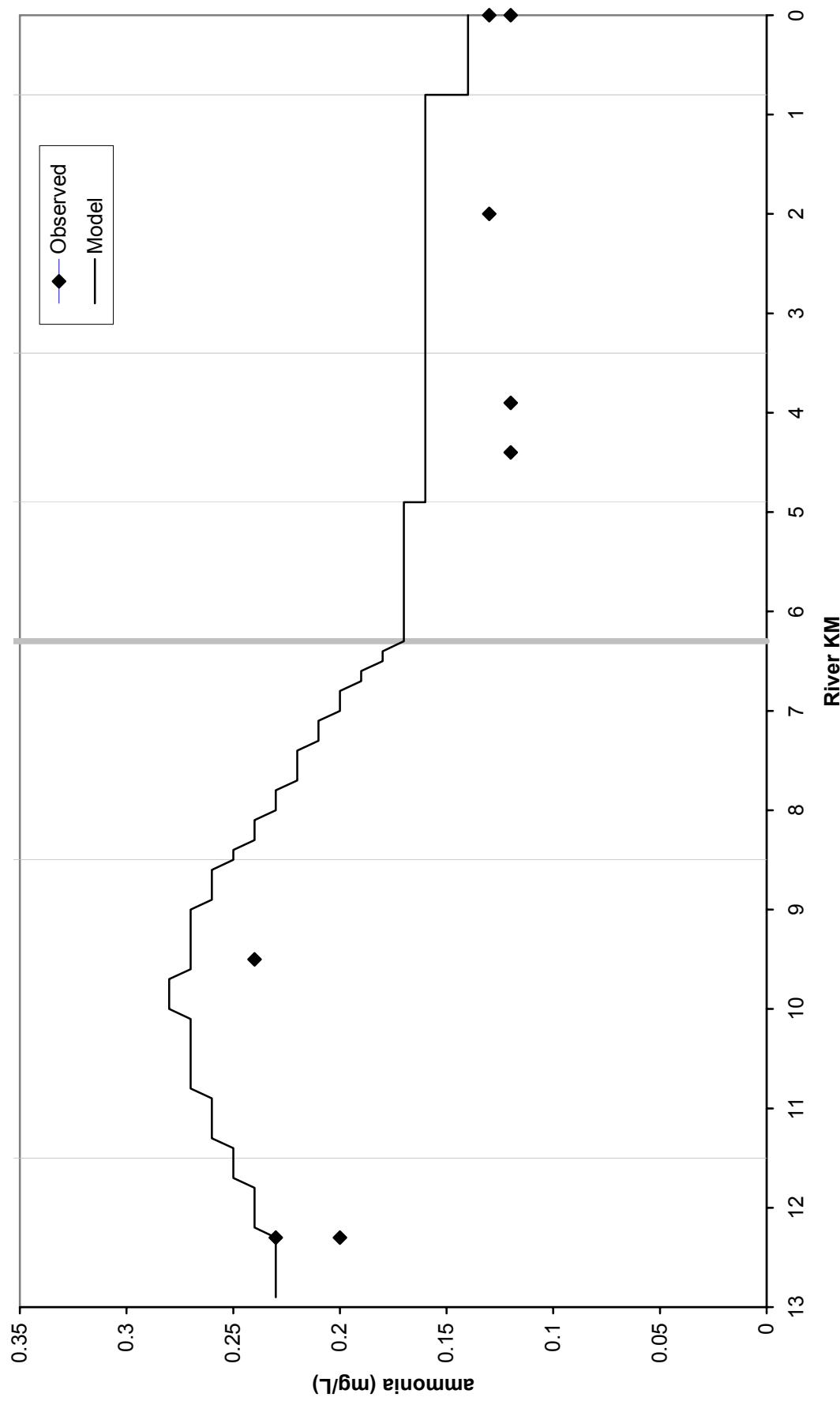


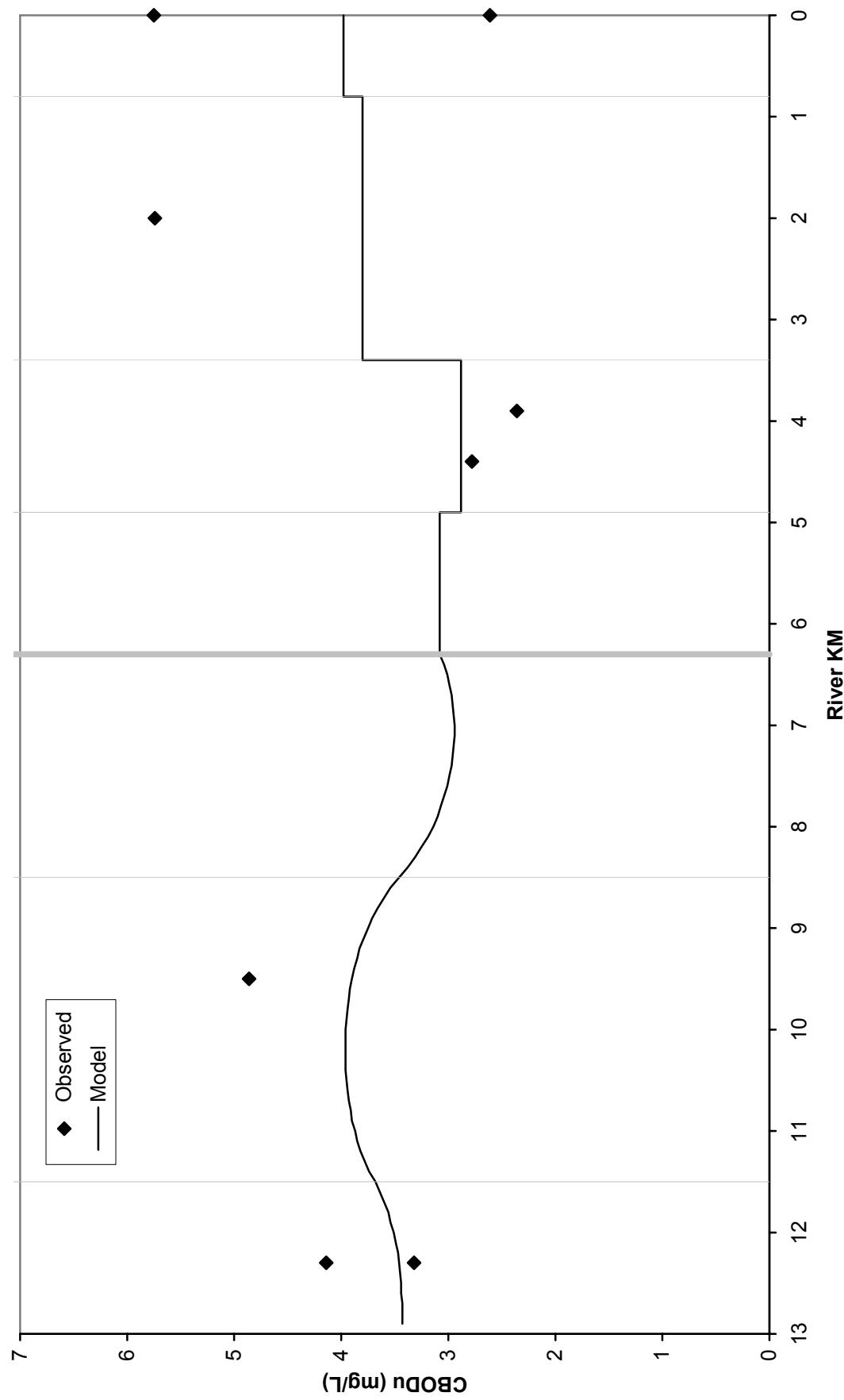
APPENDIX P

Adjusted Calibration Output Plots

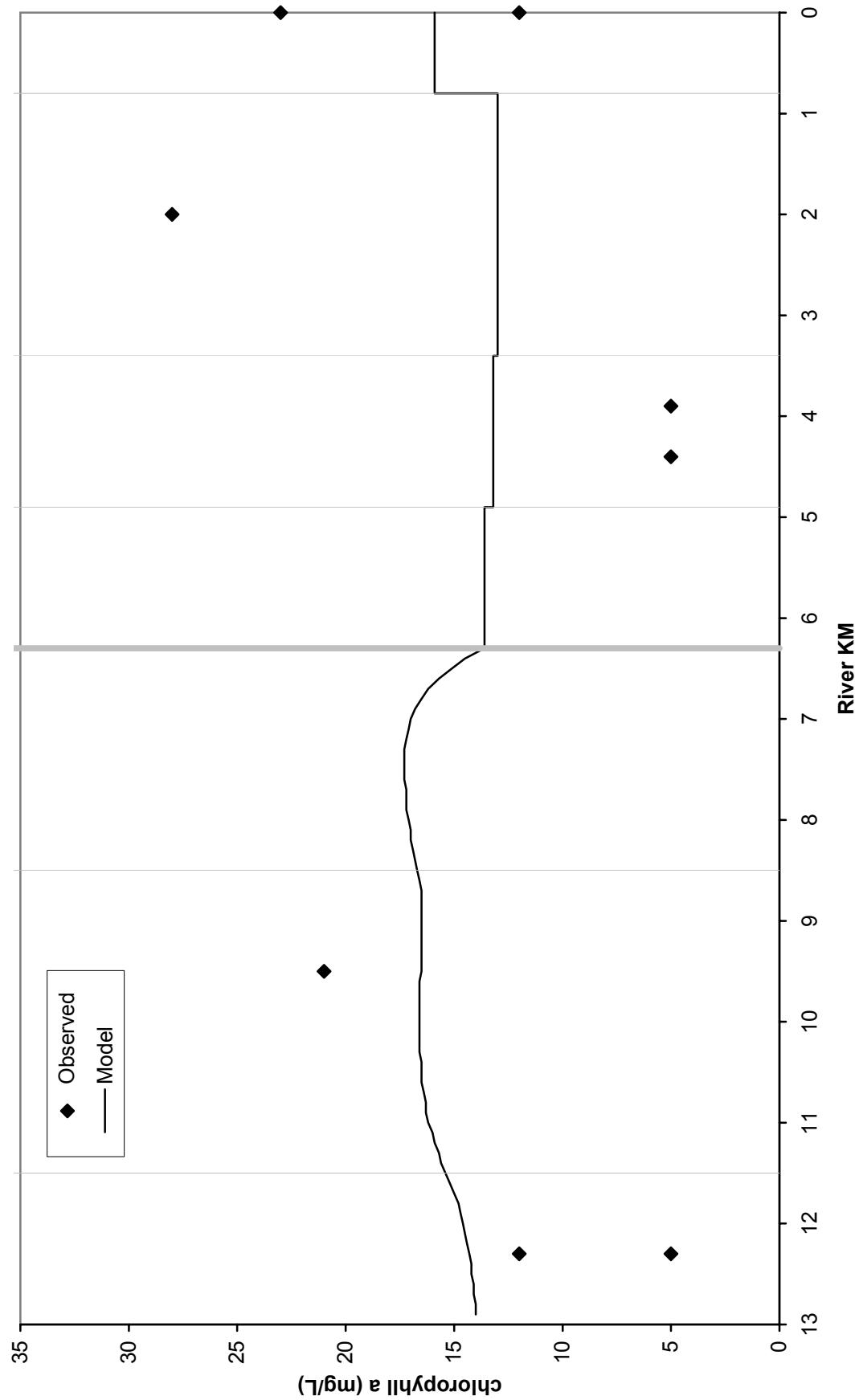
Adjusted Ammonia Nitrogen Calibration for Lake Cataouatche



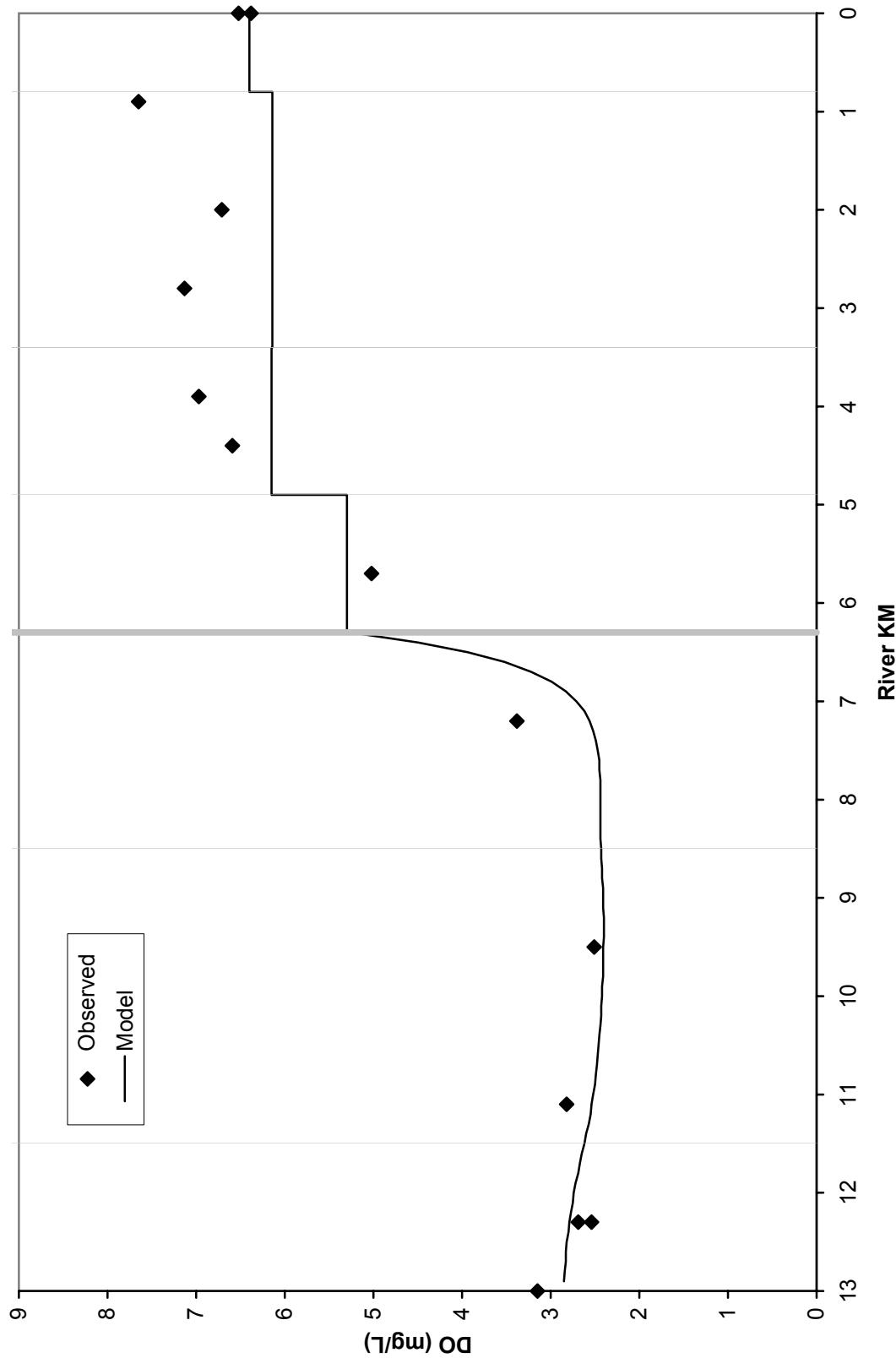
Adjusted CBOD_u Calibration for Lake Cataouatche



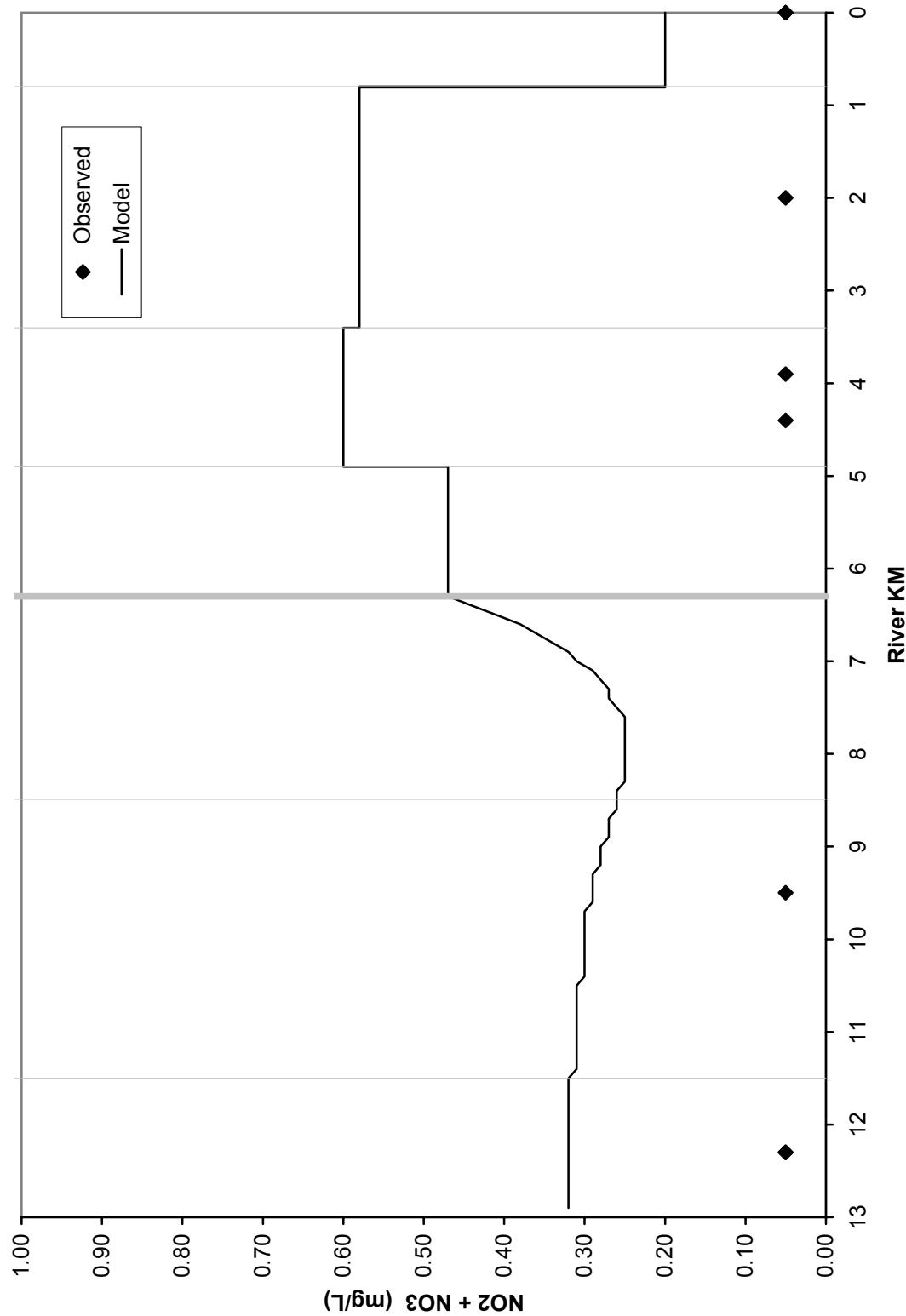
Adjusted Chlorophyll Calibration for Lake Cataouatche



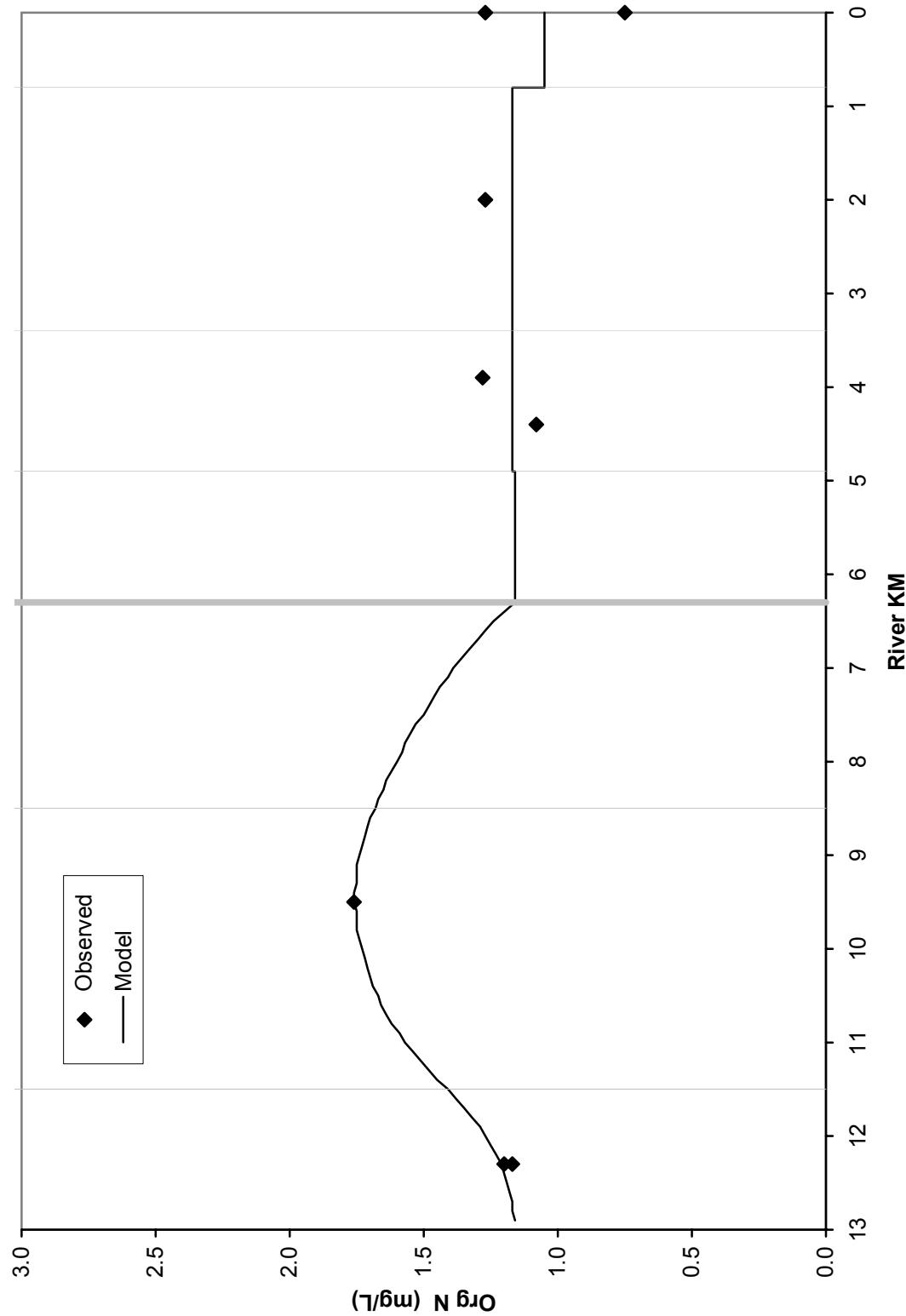
Adjusted DO Calibration for Lake Cataouatche



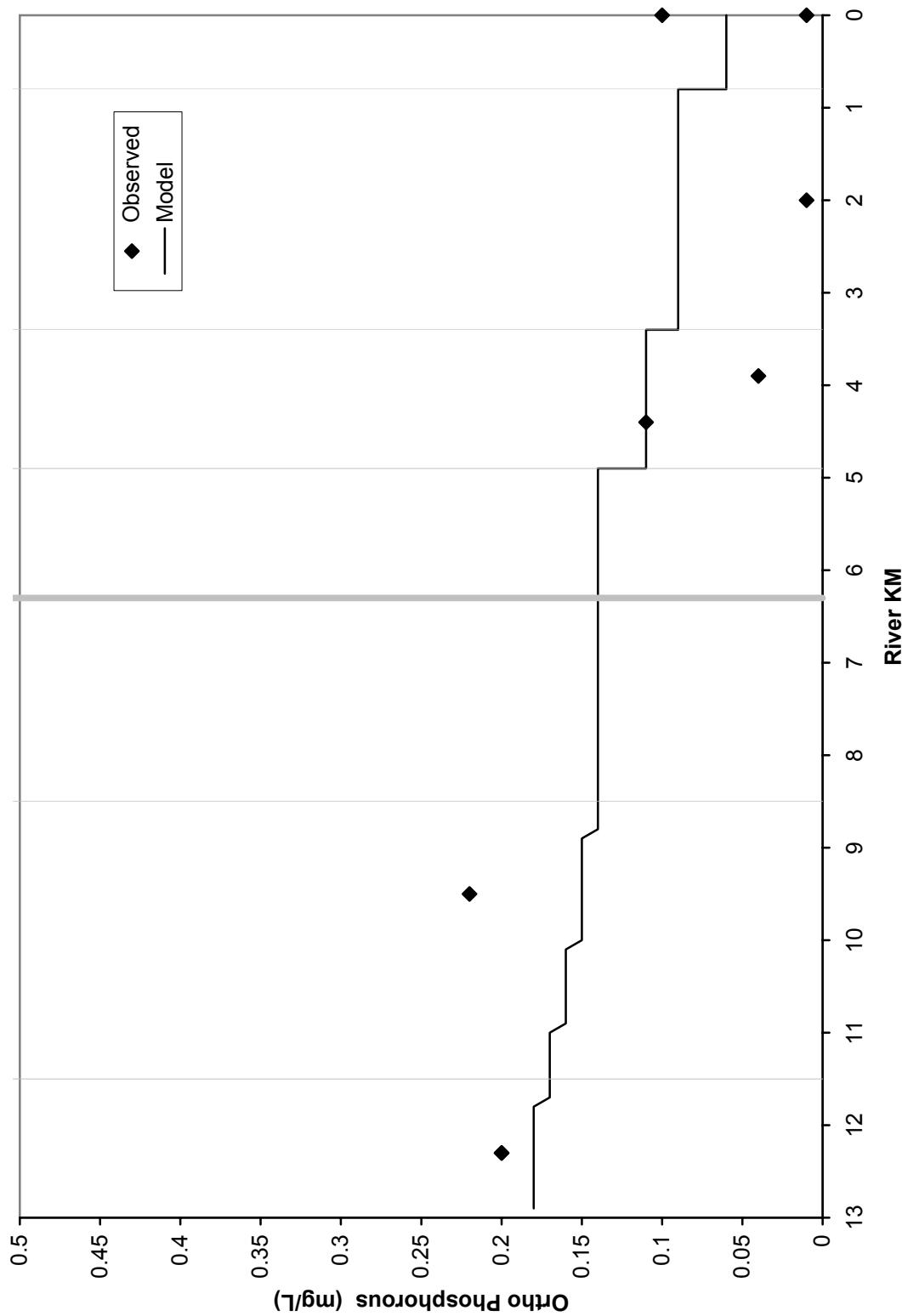
Adjusted Nitrate + Nitrite Calibration for Lake Cataouatche



Adjusted Organic Nitrogen Calibration for Lake Cataouatche



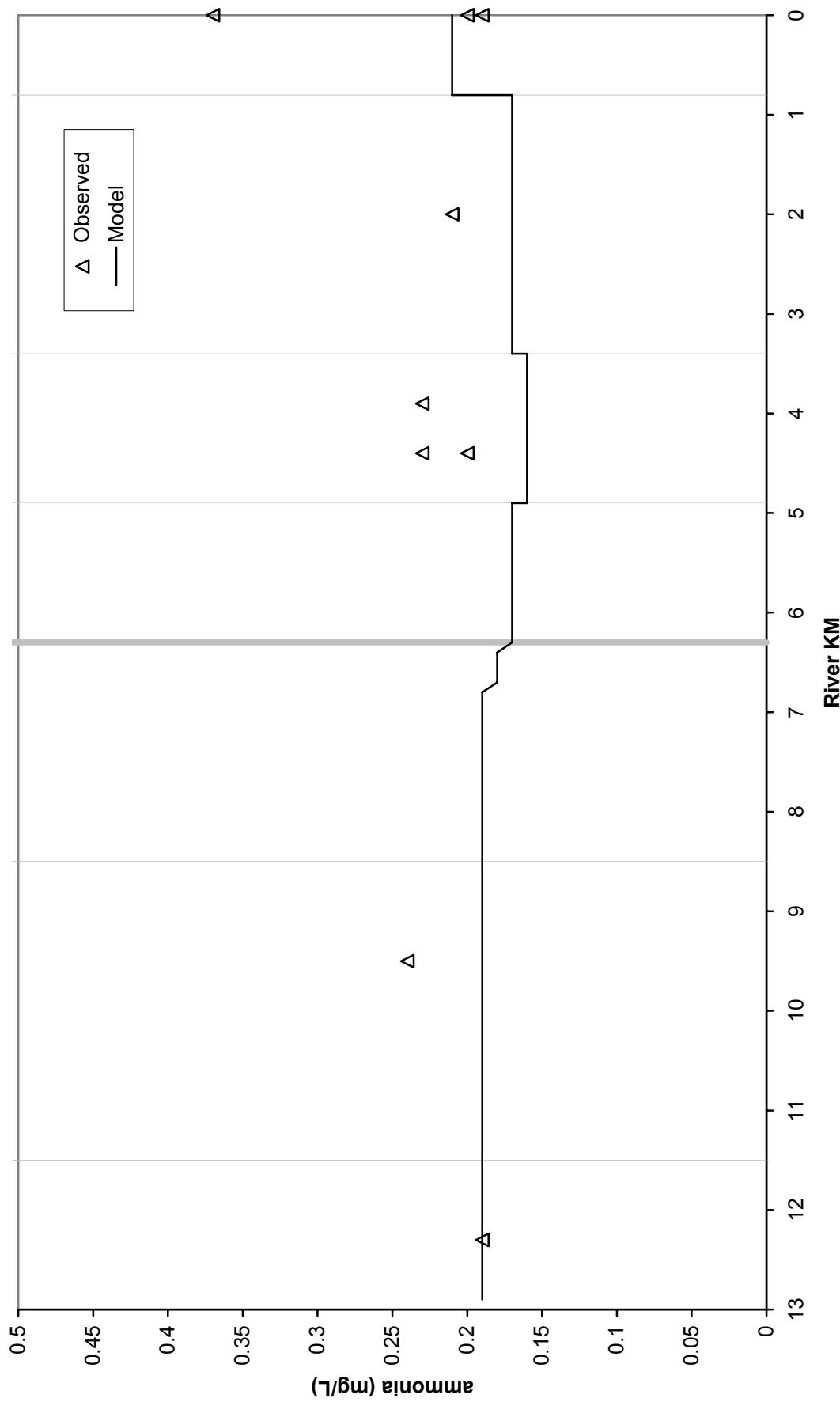
Adjusted Phosphorus Calibration for Lake Cataouatche



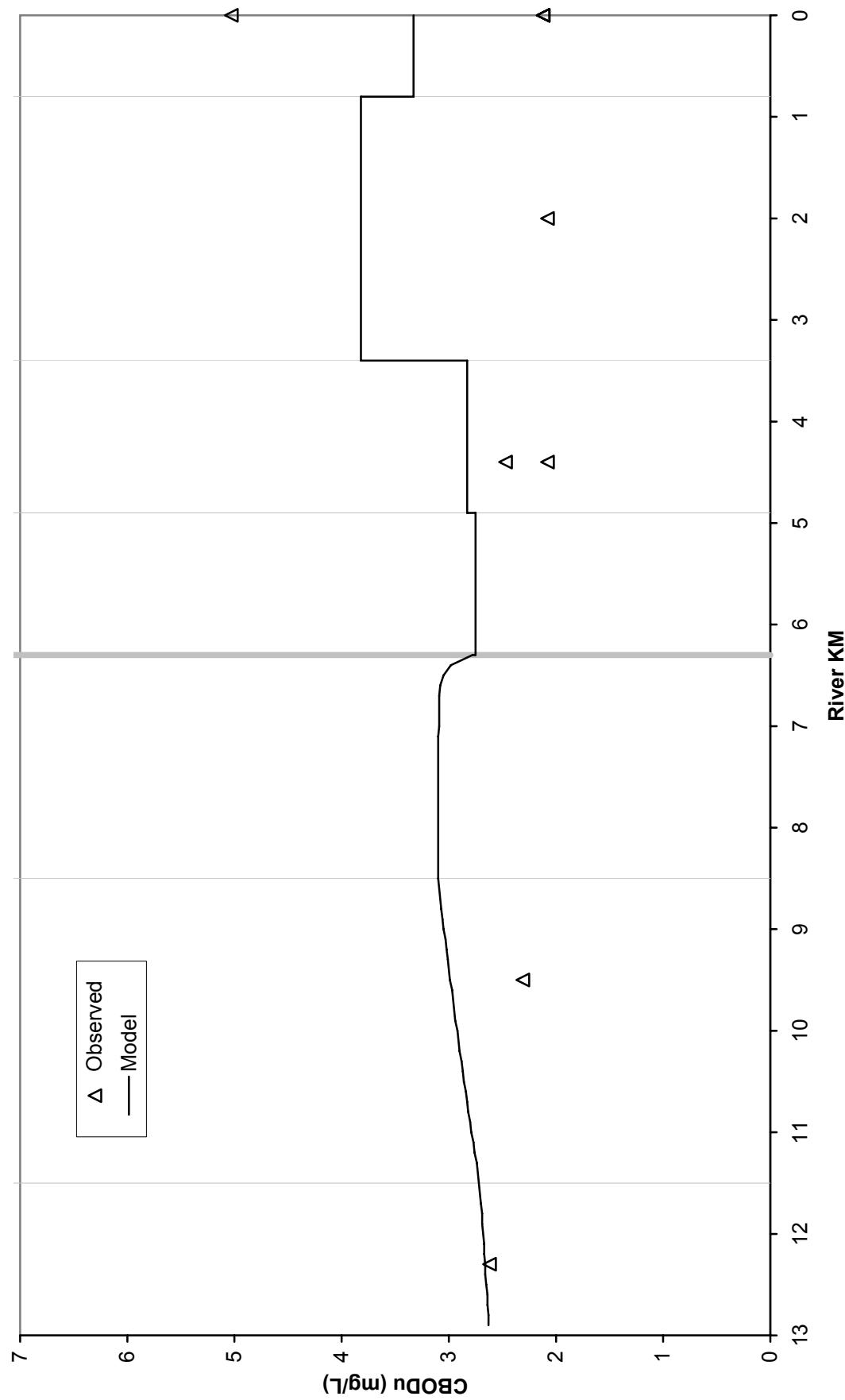
APPENDIX Q

Adjusted Verification Output Plots

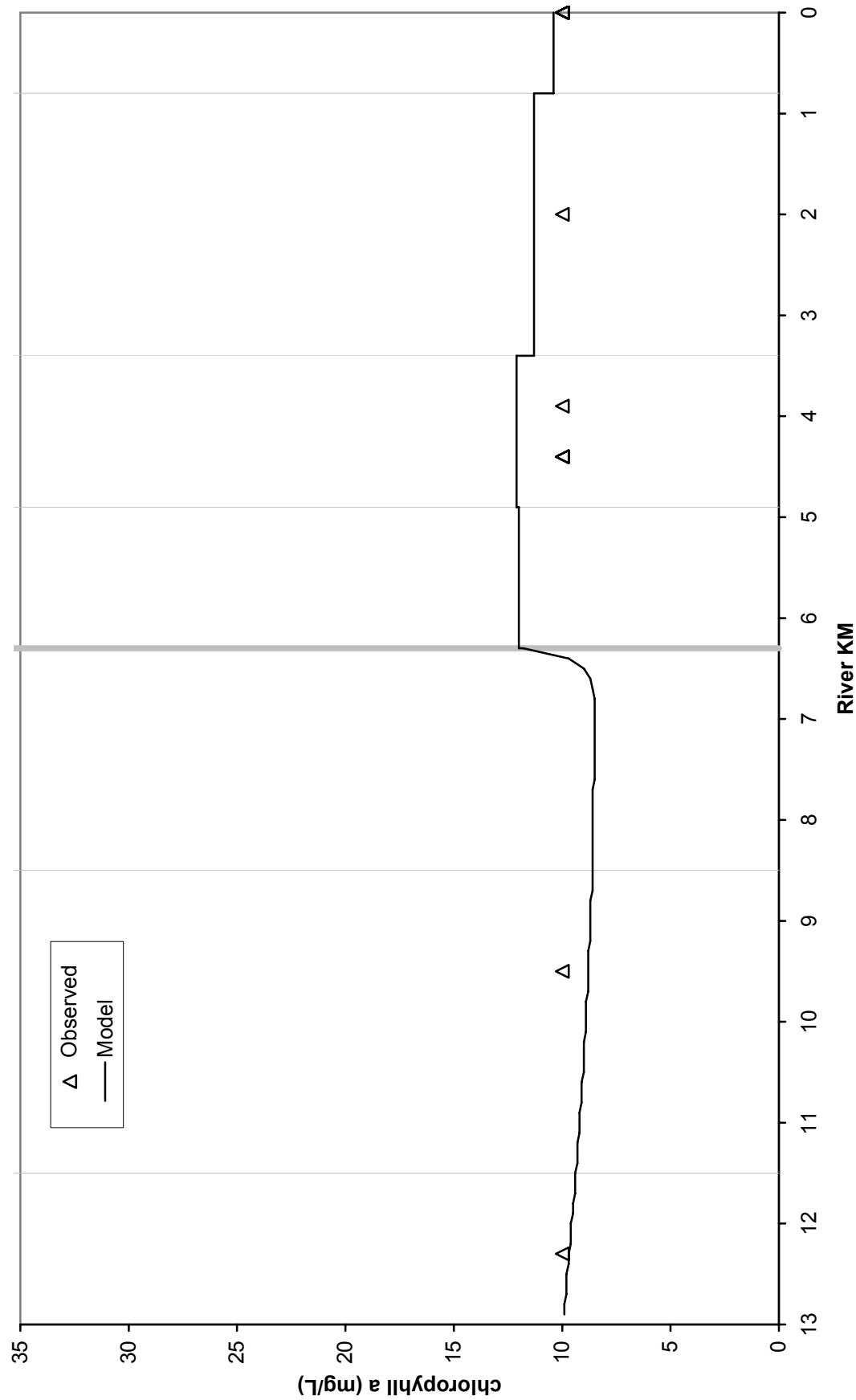
Adjusted Ammonia Nitrogen Verification for Lake Cataouatche



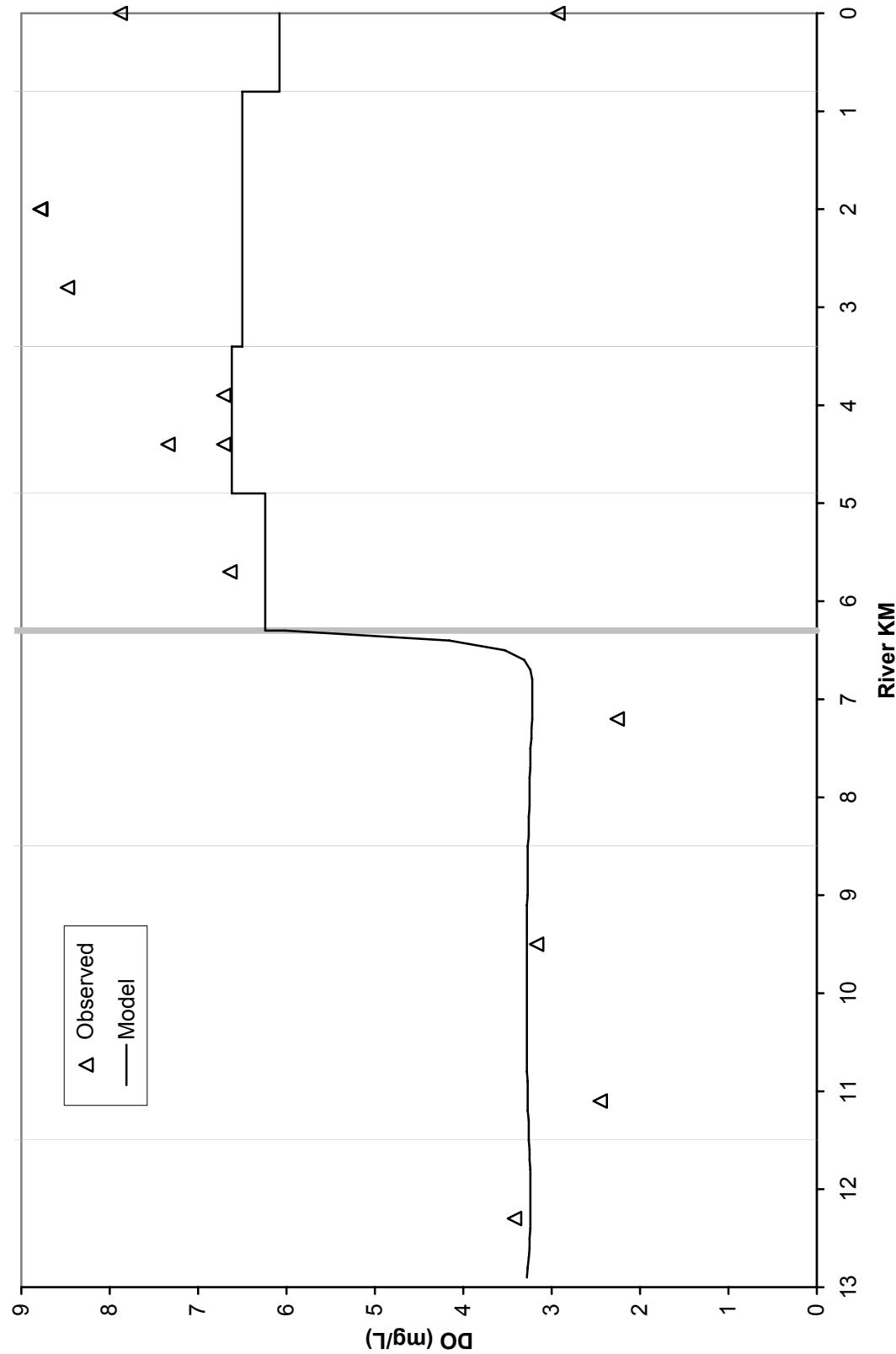
Adjusted CBODu Verification for Lake Cataouatche



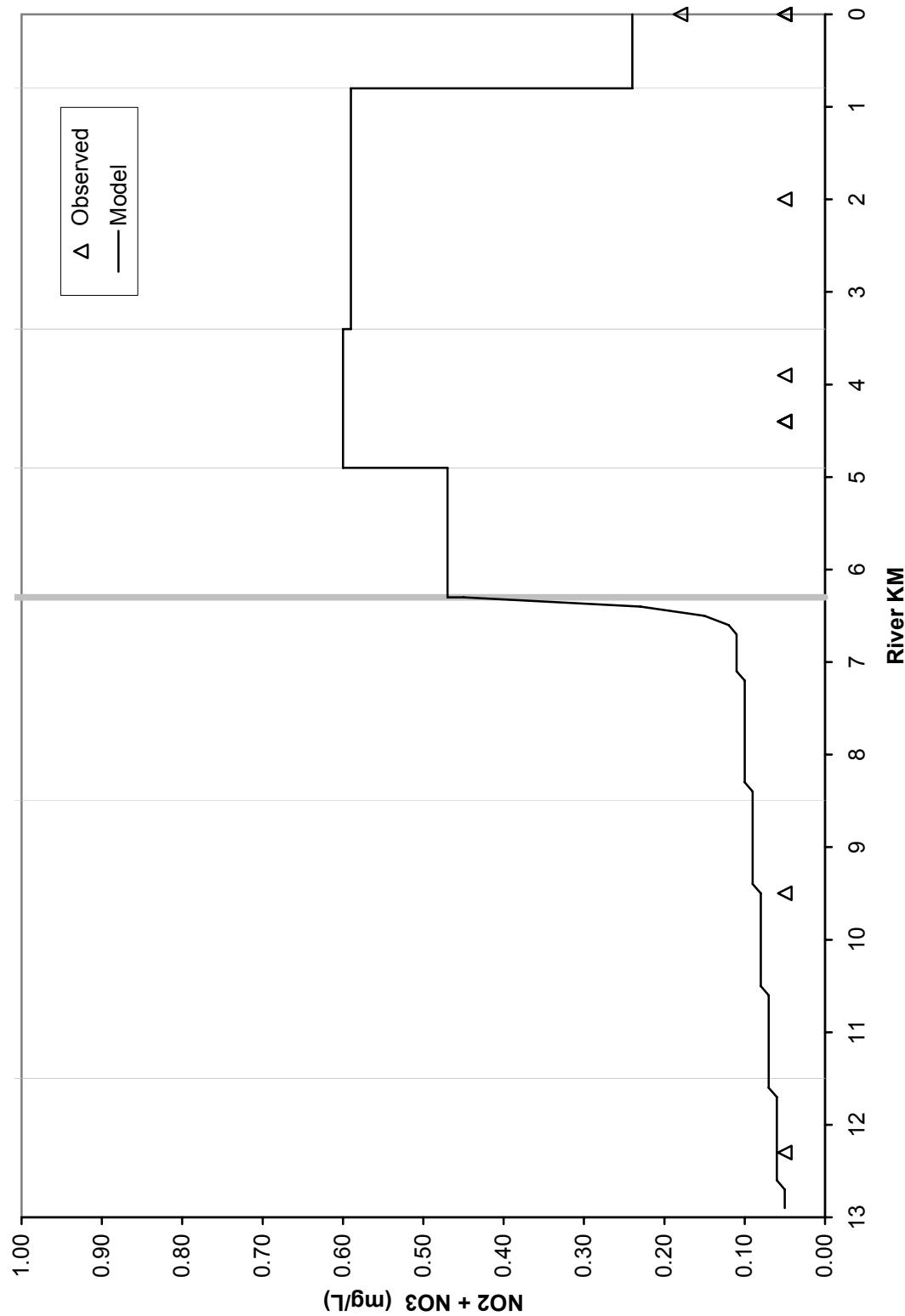
Adjusted Chlorophyll Verification for Lake Cataouatche



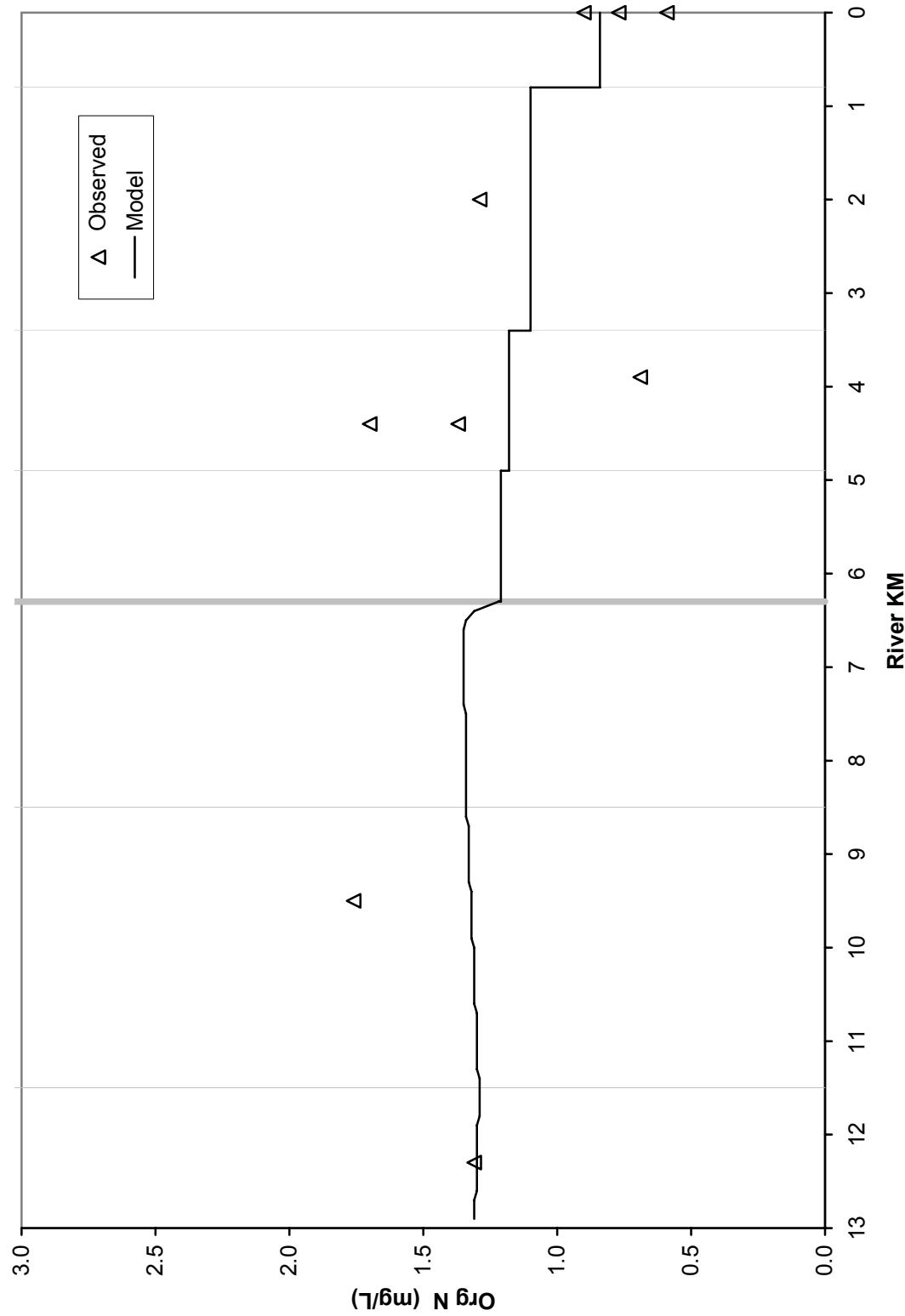
Adjusted DO Verification for Lake Cataouatche

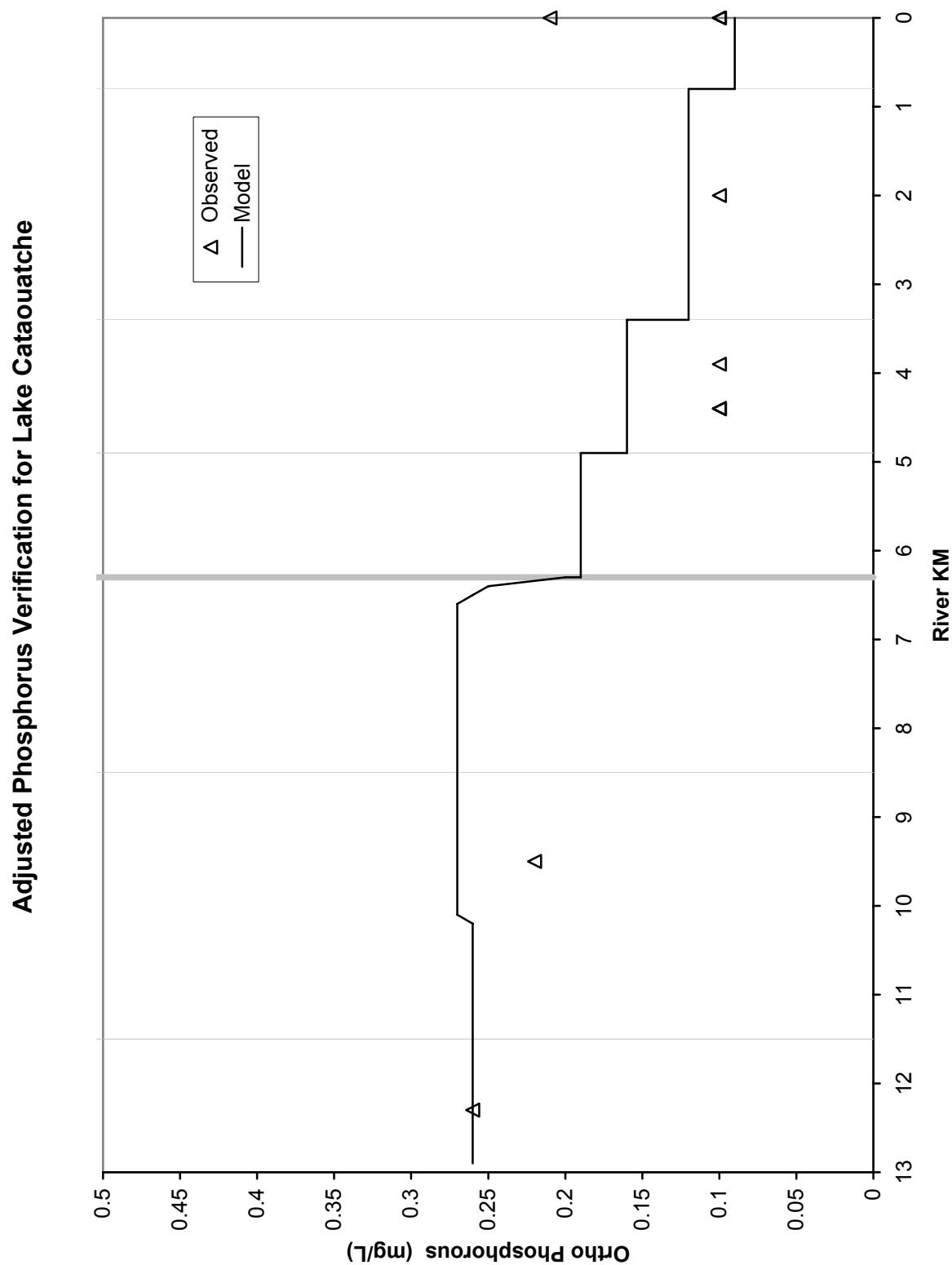


Adjusted Nitrate + Nitrite Verification for Lake Cataouatche



Adjusted Organic Nitrogen Verification for Lake Cataouatche





APPENDIX R

Adjusted Calibration Output File Printout

02/05/04
09:23:26

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
CNTROL01	QUAL-TX calibration for Lake Cataouatche, LA
CNTROL02	Adjusted Calibration run
CNTROL03	YES
CNTROL04	NO
CNTROL05	NO
CNTROL06	YES
CNTROL07	YES
CNTROL08	YES
CNTROL09	YES
CNTROL10	YES
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
MODOPT01	NO
MODOPT02	NO
MODOPT04	YES
MODOPT05	NO
MODOPT06	YES
MODOPT07	YES
MODOPT08	YES
MODOPT09	YES
MODOPT10	NO
MODOPT11	NO
MODOPT12	NO
ENDATA02	

IN umhos

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	MAXIMUM ITERATION LIMIT	= 5000.00000
PROGRAM	TOTAL DAILY RADIATION	= 416.00000
PROGRAM	P RELAXATION COEFFICIENT	= 0.10000
PROGRAM	P ERROR CLOSURE LIMITS	= 0.00500
ENDATA03		

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
THETA	NH3 DECA	1.07000
THETA	BENTHAL	1.06500
THETA	ORGN DEC	1.02000

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
ENDATA05		

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
LIGHT	LIGHT SATURATION CONSTANT	= 10.00000
N HALF	N HALF SATURATION CONSTANT	= 0.20000
P HALF	P HALF SATURATION CONSTANT	= 0.03000

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
ENDATA07		

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH ID	NAME	BEGIN REACH KM	END REACH KM	ELEM LENGTH KM	ELEM LENGTH KM	ELEM PER RCH	ELEM BEGIN NUM	ELEM END NUM
REACH ID	1	B1 Bayou Verret #1	13.00 TO 11.50	0.1000 1.50	1.50	1.5	1	15	
REACH ID	2	B2 Bayou Verret #2	11.50 TO 8.50	0.1000 3.00	3.00	3.0	16	45	
REACH ID	3	B3 Bayou Verret #3	8.50 TO 6.30	0.1000 2.20	2.20	2.2	46	67	
REACH ID	4	L1 Lake Cataouatche #1	6.30 TO 4.90	1.4000 1.40	1.40	1.40	1	68	
REACH ID	5	L2 Lake Cataouatche #2	4.90 TO 3.40	1.5000 1.50	1.50	1.50	1	69	
REACH ID	6	L3 Lake Cataouatche #3	3.40 TO 0.80	2.6000 2.60	2.60	2.60	1	70	
REACH ID	7	L4 Lake Cataouatche #4	0.80 TO 0.00	0.8000 0.80	0.80	0.80	1	71	

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	VELOCITY "A"	VELOCITY "B"	VELOCITY "C"	DEPTH "D"	DEPTH "E"	MANNINGS "N"
HYDR-1	1	B1	0.00622000	1.000	2.700	0.000	0.000	0.000
HYDR-1	2	B2	0.00573000	1.000	2.400	0.000	0.000	0.000
HYDR-1	3	B3	0.00539000	1.000	2.100	0.000	0.000	0.000
HYDR-1	4	L1	0.00014200	1.000	2.200	0.000	0.000	0.000
HYDR-1	5	L2	0.00007300	1.000	2.400	0.000	0.000	0.000
HYDR-1	6	L3	0.00007300	1.000	2.500	0.000	0.000	0.000
HYDR-1	7	L4	0.00006580	1.000	1.800	0.000	0.000	0.000
ENDATA09								

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"	
HYDR-2	1	B1	1.00	0.500	0.000	0.000	0.000	
HYDR-2	2	B2	1.00	0.500	0.000	0.000	0.000	
HYDR-2	3	B3	1.00	0.500	0.000	0.000	0.000	
HYDR-2	4	L1	1.00	2.600	0.000	0.000	0.000	
HYDR-2	5	L2	1.00	2.600	0.000	0.000	0.000	
HYDR-2	6	L3	1.00	2.600	0.000	0.000	0.000	
HYDR-2	7	L4	1.00	2.600	0.000	0.000	0.000	
ENDATA10								

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	B1	28.70	0.70	2.60	0.22	0.05	0.20	8.50	0.00
INITIAL	2	B2	29.20	0.69	2.80	0.23	0.05	0.21	14.80	0.00
INITIAL	3	B3	29.60	0.67	2.50	0.24	0.05	0.22	21.00	0.00
INITIAL	4	L1	31.00	0.52	5.00	0.18	0.05	0.15	13.00	0.00
INITIAL	5	L2	31.40	0.80	6.80	0.12	0.05	0.08	5.00	0.00
INITIAL	6	L3	31.00	0.99	6.90	0.13	0.05	0.02	28.00	0.00
INITIAL	7	L4	31.30	1.01	7.70	0.13	0.05	0.04	22.80	0.00
ENDATA11										

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGND SOD	AEROB BOD DECAY	ANAEER BOD DECAY
COEF-1	1 B1	1.	0.240	0.000	0.000	1.600	0.050	0.000
COEF-1	2 B2	1.	0.280	0.000	0.000	1.800	0.050	0.000
COEF-1	3 B3	1.	0.310	0.000	0.000	1.800	0.050	0.000
COEF-1	4 L1	1.	0.370	0.000	0.000	0.300	0.050	0.000
COEF-1	5 L2	1.	0.340	0.000	0.000	0.000	0.050	0.000
COEF-1	6 L3	1.	0.330	0.000	0.000	0.000	0.050	0.000
COEF-1	7 L4	1.	0.460	0.000	0.000	0.000	0.050	0.000
ENDATA12								

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	ORG-N DECA	ORG-N SETT	ORG-N CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1 B1	0.01	0.00	1.00	0.05	0.00	0.01	0.00
COEF-2	2 B2	0.01	0.00	1.00	0.05	0.00	0.01	0.00
COEF-2	3 B3	0.01	0.00	1.00	0.05	0.00	0.01	0.00
COEF-2	4 L1	0.01	0.00	1.00	0.10	0.01	0.00	0.00
COEF-2	5 L2	0.01	0.00	1.00	0.10	0.01	0.00	0.00
COEF-2	6 L3	0.01	0.00	1.00	0.10	0.01	0.00	0.00
COEF-2	7 L4	0.01	0.00	1.00	0.10	0.01	0.00	0.00
ENDATA13								

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP
COEF-3	1 B1	1.00	0.060	0.50	0.08	1.35	0.10	0.00	0.00
COEF-3	2 B2	1.00	0.060	0.50	0.08	1.35	0.10	0.00	0.00
COEF-3	3 B3	1.00	0.060	0.50	0.08	1.35	0.10	0.00	0.00
COEF-3	4 L1	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
COEF-3	5 L2	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
COEF-3	6 L3	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
COEF-3	7 L4	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
ENDATA14									

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15					

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	INFLOW/DIST
ENDATA16								

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH ID	DO	BOD	ORG-N	NH3	NO3+2
ENDATA17						

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH ID	PHOS	CHL A	COLI	NCM
ENDATA18					

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH ID	BOD	ORG-N	COLI	NCM	DO
NONPOINT	1 B1	60.00	1.00	0.00	0.00	0.00
NONPOINT	2 B2	165.00	14.50	0.00	0.00	0.00
NONPOINT	3 B3	90.00	9.00	0.00	0.00	0.00
NONPOINT	4 L1	2000.00	100.00	0.00	0.00	0.00
NONPOINT	5 L2	3000.00	325.00	0.00	0.00	0.00
NONPOINT	6 L3	13280.00	750.00	0.00	0.00	0.00
NONPOINT	7 L4	2880.00	150.00	0.00	0.00	0.00
ENDATA19						

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW	TEMP	SALIN	CM-I	CM-II
HDWTR-1	1	Bayou Verret	0	0.00210	28.800	0.720	1250.000	0.000
ENDATA20								

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO	BOD	ORG-N	NH3	NO3+2
HDWTR-2	1	Bayou Verret	3.20	4.03	1.19	0.22	0.05
ENDATA21							

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
HDWTR-3	1	Bayou Verret	0.20	12.00	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION	UPSTRM	NAME
	ELEMENT	ELEMENT	ELEMENT
ENDATA23			

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	FLOW	TEMP	SAL	CM-I	CM-II
WSTLD-1	68	LUMBER CANAL	0.90000	30.200	0.560	995.000	0.000
WSTLD-1	68	DAVIS POND	10.00000	30.200	0.560	995.000	0.000
ENDATA24							

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO	BOD	% BOD	ORG-N	NH3	NITRIF	%
WSTLD-2	68	LUMBER CANAL	1.47	4.03	0.00	1.19	0.22	0.00	0.05
WSTLD-2	68	DAVIS POND	1.47	4.03	0.00	1.19	0.22	0.00	0.05
ENDATA25									

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
WSTLD-3	68	LUMBER CANAL	0.20	12.00	0.00	0.00
WSTLD-3	68	DAVIS POND	0.20	12.00	0.00	0.00
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 31.200 DEG C
LOWER BC	SALINITY	= 0.950 PPT
LOWER BC	CONSERVATIVE MATERIAL I	= 1695.000 umhos
LOWER BC	CONSERVATIVE MATERIAL II	= 0.000
LOWER BC	DISSOLVED OXYGEN	= 6.460 MG/L
LOWER BC	BIOCHEMICAL OXYGEN DEMAND	= 4.180 MG/L
LOWER BC	ORGANIC NITROGEN	= 1.010 MG/L
LOWER BC	AMMONIA NITROGEN	= 0.130 MG/L
LOWER BC	NITRATE + NITRITE NITROGEN	= 0.050 MG/L
LOWER BC	PHOSPHORUS	= 0.060 MG/L
LOWER BC	CHLOROPHYLL A	= 17.500 ug/L
LOWER BC	COLIFORM	= 0.000 #/100 ML
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.0000

ENDATA27

\$\$\$ DATA TYPE 28 (FLOW AUGMENTATION DATA) \$\$\$

CARD TYPE	REACH	AVAIL HDWS	TARGET	ORDER OF AVAIL SOURCES
ENDATA28				

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
ENDATA29									

\$\$\$ DATA TYPE 30 (PILOT CONTROL CARDS) \$\$\$

ENDATA30

.....NO ERRORS DETECTED IN INPUT DATA

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....PHOTOSYNTHETIC RATES CONVERGENT IN 467 ITERATIONS

.....OXYGEN DEPENDENT RATES CONVERGENT IN 1 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

1 FINAL REPORT
REACH NO. 1

Bayou Verret
Bayou Verret #1

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Calibration run

REACH INPUTS											
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L
1	HDWTR	0.0021	28.80	0.72	1250.0	0.0	3.20	4.03	4.03	1.19	0.22
HYDRAULIC PARAMETER VALUES											
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCNT VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	CU M	SQ M	SURFACE AREA SQ M
1	13.00	12.90	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
2	12.90	12.80	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
3	12.80	12.70	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
4	12.70	12.60	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
5	12.60	12.50	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
6	12.50	12.40	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
7	12.40	12.30	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
8	12.30	12.20	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
9	12.20	12.10	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
10	12.10	12.00	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
11	12.00	11.90	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
12	11.90	11.80	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
13	11.80	11.70	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
14	11.70	11.60	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
15	11.60	11.50	0.0021	0.0	0.000	88.61	2.70	59.5	16077.	5954.5	160.8
TOT AVG CUM			0.000		1329.13	2.70		59.5	241158.	89317.6	160.8

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD ANBOD SETT DECAY 1/DA	FULL SOD 1/DA	CORR SOD 1/DA	ORGN SETT 1/DA	NH3 DECAY 1/DA	NH3 SRCE 1/DA	DENIT SRCE 1/DA	PO4 SRCE 1/DA	ALG PROD **	MAC PROD **	NCM DECAY 1/DA	COLI DECAY 1/DA	NCM SETT 1/DA
1	12.900	7.70	0.28	0.07	0.00	0.00	3.46	0.01	0.00	0.07	0.00	0.01	0.25	0.00	0.00	0.00	0.00
2	12.800	7.69	0.28	0.07	0.00	0.00	3.47	0.01	0.00	0.07	0.00	0.01	0.25	0.00	0.00	0.00	0.00
3	12.700	7.69	0.28	0.07	0.00	0.00	3.48	0.01	0.00	0.07	0.00	0.01	0.25	0.00	0.00	0.00	0.00
4	12.600	7.68	0.28	0.08	0.00	0.00	3.49	0.01	0.00	0.07	0.00	0.01	0.25	0.00	0.00	0.00	0.00
5	12.500	7.68	0.28	0.08	0.00	0.00	3.50	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
6	12.400	7.67	0.28	0.08	0.00	0.00	3.50	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
7	12.300	7.67	0.28	0.08	0.00	0.00	3.51	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
8	12.200	7.67	0.28	0.08	0.00	0.00	3.53	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
9	12.100	7.66	0.28	0.08	0.00	0.00	3.54	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
10	12.000	7.66	0.28	0.08	0.00	0.00	3.55	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
11	11.900	7.65	0.28	0.08	0.00	0.00	3.56	0.01	0.00	0.07	0.00	0.01	0.26	0.00	0.00	0.00	0.00
12	11.800	7.65	0.28	0.08	0.00	0.00	3.57	0.01	0.00	0.07	0.00	0.01	0.27	0.00	0.00	0.00	0.00
13	11.700	7.64	0.28	0.08	0.00	0.00	3.59	0.01	0.00	0.07	0.00	0.01	0.27	0.00	0.00	0.00	0.00
14	11.600	7.64	0.28	0.08	0.00	0.00	3.60	0.01	0.00	0.07	0.00	0.01	0.27	0.00	0.00	0.00	0.00
15	11.500	7.64	0.28	0.08	0.00	0.00	3.62	0.01	0.00	0.07	0.00	0.01	0.27	0.00	0.00	0.00	0.00
	20 DEG C RATE		0.05		0.00		1.60	0.01		0.05	0.00	0.01		0.00	0.00	0.00	0.00
	AVG 20 DEG C RATE		0.24		0.00												
	* G/SQ M/D		** MG/L/DAY														

20 DEG C RATE
AVG 20 DEG C RATE
* G/SQ M/D
** MG/L/DAY

ELEM NO.	ENDING DIST	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHLA UG/L	MACRO	COLI #/100ML	NCM *
1	12.900	28.73	0.7	1171.2	0.0	2.85	3.43	3.43	1.16	0.23	0.32	1.72	0.18	14.0	0.0	0.00	
2	12.800	28.77	0.7	1171.0	0.0	2.84	3.43	3.43	1.17	0.23	0.32	1.72	0.18	14.0	0.0	0.00	
3	12.700	28.80	0.7	1170.8	0.0	2.83	3.43	3.43	1.17	0.23	0.32	1.72	0.18	14.1	0.0	0.00	
4	12.600	28.83	0.7	1170.6	0.0	2.83	3.44	3.44	1.18	0.23	0.32	1.73	0.18	14.1	0.0	0.00	
5	12.500	28.87	0.7	1170.4	0.0	2.82	3.44	3.44	1.19	0.23	0.32	1.74	0.18	14.2	0.0	0.00	
6	12.400	28.90	0.7	1170.2	0.0	2.80	3.45	3.45	1.20	0.23	0.32	1.75	0.18	14.2	0.0	0.00	
7	12.300	28.93	0.7	1170.0	0.0	2.79	3.46	3.46	1.21	0.23	0.32	1.77	0.18	14.3	0.0	0.00	
8	12.200	28.97	0.7	1169.8	0.0	2.77	3.47	3.47	1.23	0.24	0.32	1.79	0.18	14.4	0.0	0.00	
9	12.100	29.00	0.7	1169.6	0.0	2.75	3.49	3.49	1.25	0.24	0.32	1.81	0.18	14.5	0.0	0.00	
10	12.000	29.03	0.7	1169.4	0.0	2.74	3.51	3.51	1.27	0.24	0.32	1.83	0.18	14.6	0.0	0.00	
11	11.900	29.07	0.7	1169.2	0.0	2.72	3.54	3.54	1.29	0.24	0.32	1.86	0.18	14.7	0.0	0.00	
12	11.800	29.10	0.7	1168.9	0.0	2.69	3.56	3.56	1.32	0.24	0.32	1.88	0.18	14.8	0.0	0.00	
13	11.700	29.13	0.7	1168.7	0.0	2.67	3.60	3.60	1.35	0.25	0.32	1.91	0.17	15.0	0.0	0.00	
14	11.600	29.17	0.7	1168.5	0.0	2.65	3.64	3.64	1.38	0.25	0.32	1.95	0.17	15.2	0.0	0.00	
15	11.500	29.20	0.7	1168.3	0.0	2.62	3.68	3.68	1.41	0.25	0.32	1.98	0.17	15.4	0.0	0.00	
	CM-II = cond umhos																
	CM-III =																
	NCM =																

* CM-I = cond
umhos
** G/CU M

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N P N&P TOT	ALG 1/DA LIM LIM LIM LIM	ALG GROW 1/DA	ALG RESP 1/DA	A/P/R MAC RATIO LIT N	MAC LIM LIM LIM LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO	
1	12.900	0.80	0.58	0.23 .23 .73 .86 .79 .19	0.37	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
2	12.800	0.80	0.58	0.23 .23 .73 .86 .79 .19	0.37	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
3	12.700	0.79	0.58	0.23 .23 .73 .86 .79 .19	0.37	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
4	12.600	0.79	0.58	0.23 .23 .73 .86 .79 .19	0.38	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
5	12.500	0.79	0.58	0.23 .23 .74 .86 .79 .19	0.38	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
6	12.400	0.79	0.58	0.23 .23 .74 .86 .79 .18	0.38	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
7	12.300	0.79	0.58	0.23 .23 .74 .86 .79 .18	0.38	0.15	2.00	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
8	12.200	0.79	0.58	0.23 .23 .74 .86 .79 .18	0.38	0.15	1.99	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
9	12.100	0.79	0.58	0.23 .23 .74 .86 .79 .18	0.38	0.15	1.99	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
10	12.000	0.79	0.57	0.23 .23 .74 .86 .79 .18	0.38	0.15	1.99	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
11	11.900	0.79	0.57	0.23 .23 .74 .85 .79 .18	0.38	0.15	1.99	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
12	11.800	0.79	0.57	0.23 .23 .74 .85 .79 .18	0.38	0.15	1.98	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
13	11.700	0.79	0.57	0.23 .23 .74 .85 .79 .18	0.38	0.15	1.98	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
14	11.600	0.79	0.56	0.23 .23 .74 .85 .79 .18	0.38	0.15	1.98	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
15	11.500	0.78	0.56	0.23 .23 .74 .85 .79 .18	0.38	0.15	1.97	.00 .00 .00 .00	0.00	0.00	0.00	0.00	
	20 DEG C RATE		0.50		1.35	0.10				0.00	0.00		

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

1 FINAL REPORT Bayou Verret
REACH NO. 2 Bayou Verret #2

***** REACH INPUTS *****
QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Calibration run

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
16	UPR RCH	0.0021	29.20	0.69	1168.3	0.0	2.62	3.68	3.68	1.41	0.25	0.32	0.17	15.4	0. 0.00

***** HYDRAULIC PARAMETER VALUES *****															
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCVT VELO M/S	TRAVEL TIME DAYS	DEPTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPNSN SQ M/S	MEAN VELO M/S	
16	11.50	11.40	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
17	11.40	11.30	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
18	11.30	11.20	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
19	11.20	11.10	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
20	11.10	11.00	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
21	11.00	10.90	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
22	10.90	10.80	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
23	10.80	10.70	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
24	10.70	10.60	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
25	10.60	10.50	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
26	10.50	10.40	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
27	10.40	10.30	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
28	10.30	10.20	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
29	10.20	10.10	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
30	10.10	10.00	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
31	10.00	9.90	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
32	9.90	9.80	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
33	9.80	9.70	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
34	9.70	9.60	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
35	9.60	9.50	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
36	9.50	9.40	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
37	9.40	9.30	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
38	9.30	9.20	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
39	9.20	9.10	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
40	9.10	9.00	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
41	9.00	8.90	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
42	8.90	8.80	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
43	8.80	8.70	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
44	8.70	8.60	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
45	8.60	8.50	0.0021	0.0	0.000	96.19	2.40	72.7	17452.	7271.7	174.5	0.	0.000	0.500	0.000
TOT					2885.58	2.40	72.7		523560.		218150.1		174.5		
AVG					0.000	4214.71									
CUM															

BIOLOGICAL AND PHYSICAL COEFFICIENTS																		
ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	ANBOD SETT 1/DA	CEBOD DECAY 1/DA	ORGN DECAY 1/DA	ORGN SETT 1/DA	CORR SOD *	FULL DECAY 1/DA	NH3 DECAY 1/DA	NH3 SRCE 1/DA	DENIT SRCE 1/DA	PO4 PROD *	ALG PROD **	COLI PROD ***	NCM DECAY 1/DA	NCM SETT 1/DA
16	11.400	7.63	0.33	0.08	0.00	0.00	3.99	0.01	0.00	0.07	0.01	0.00	0.01	0.34	0.00	0.00	0.00	
17	11.300	7.63	0.33	0.08	0.00	0.00	4.00	0.01	0.00	0.07	0.01	0.00	0.01	0.34	0.00	0.00	0.00	
18	11.200	7.63	0.33	0.08	0.00	0.00	4.01	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
19	11.100	7.63	0.33	0.08	0.00	0.00	4.02	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
20	11.000	7.63	0.33	0.08	0.00	0.00	4.03	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
21	10.900	7.62	0.33	0.08	0.00	0.00	4.04	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
22	10.800	7.62	0.33	0.08	0.00	0.00	4.05	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
23	10.700	7.62	0.33	0.08	0.00	0.00	4.05	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
24	10.600	7.62	0.33	0.08	0.00	0.00	4.06	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
25	10.500	7.62	0.33	0.08	0.00	0.00	4.06	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
26	10.400	7.62	0.33	0.08	0.00	0.00	4.07	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
27	10.300	7.61	0.33	0.08	0.00	0.00	4.07	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
28	10.200	7.61	0.33	0.08	0.00	0.00	4.08	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
29	10.100	7.61	0.33	0.08	0.00	0.00	4.08	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
30	10.000	7.61	0.33	0.08	0.00	0.00	4.08	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
31	9.900	7.61	0.33	0.08	0.00	0.00	4.09	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
32	9.800	7.61	0.33	0.08	0.00	0.00	4.09	0.01	0.00	0.07	0.01	0.00	0.01	0.36	0.00	0.00	0.00	
33	9.700	7.60	0.33	0.08	0.00	0.00	4.09	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
34	9.600	7.60	0.33	0.08	0.00	0.00	4.09	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
35	9.500	7.60	0.33	0.08	0.00	0.00	4.10	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
36	9.400	7.60	0.33	0.08	0.00	0.00	4.10	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
37	9.300	7.60	0.33	0.08	0.00	0.00	4.10	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
38	9.200	7.60	0.33	0.08	0.00	0.00	4.10	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
39	9.100	7.59	0.33	0.08	0.00	0.00	4.10	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
40	9.000	7.59	0.33	0.08	0.00	0.00	4.11	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
41	8.900	7.59	0.33	0.08	0.00	0.00	4.11	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
42	8.800	7.59	0.33	0.08	0.00	0.00	4.11	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
43	8.700	7.59	0.33	0.08	0.00	0.00	4.12	0.01	0.00	0.07	0.01	0.00	0.01	0.35	0.00	0.00	0.00	
44	8.600	7.58	0.33	0.08	0.00	0.00	4.13	0.01	0.00	0.07	0.01	0.00	0.01	0.34	0.00	0.00	0.00	
45	8.500	7.58	0.33	0.08	0.00	0.00	4.13	0.01	0.00	0.07	0.01	0.00	0.01	0.34	0.00	0.00	0.00	
20 DEG C RATE			0.05			0.00			1.80			0.01			0.05			
AVG 20 DEG C RATE			0.28			0.00			0.00			0.00			0.00			
* G/SQ M/D			** MG/L/DAY												0.00			

WATER QUALITY CONSTITUENT VALUES																	
ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/l	MACRO **	COLI #/100ML	NCM *
16	11.400	29.21	0.7	1168.1	0.0	2.60	3.74	3.74	1.45	0.25	0.31	2.02	0.17	15.6	0.0	0.00	
17	11.300	29.23	0.7	1167.9	0.0	2.57	3.78	3.78	1.48	0.26	0.31	2.05	0.17	15.7	0.0	0.00	
18	11.200	29.24	0.7	1167.7	0.0	2.55	3.82	3.82	1.51	0.26	0.31	2.08	0.17	15.9	0.0	0.00	
19	11.100	29.25	0.7	1167.5	0.0	2.54	3.85	3.85	1.54	0.26	0.31	2.11	0.17	16.0	0.0	0.00	
20	11.000	29.27	0.7	1167.3	0.0	2.52	3.87	3.87	1.57	0.26	0.31	2.14	0.17	16.2	0.0	0.00	
21	10.900	29.28	0.7	1167.1	0.0	2.50	3.90	3.90	1.59	0.26	0.31	2.17	0.16	16.3	0.0	0.00	
22	10.800	29.29	0.7	1166.9	0.0	2.49	3.91	3.91	1.62	0.27	0.31	2.19	0.16	16.3	0.0	0.00	
23	10.700	29.31	0.7	1166.7	0.0	2.48	3.93	3.93	1.64	0.27	0.31	2.21	0.16	16.4	0.0	0.00	
24	10.600	29.32	0.7	1166.5	0.0	2.47	3.94	3.94	1.66	0.27	0.31	2.23	0.16	16.5	0.0	0.00	
25	10.500	29.33	0.7	1166.3	0.0	2.46	3.95	3.95	1.67	0.27	0.31	2.25	0.16	16.5	0.0	0.00	
26	10.400	29.35	0.7	1166.1	0.0	2.45	3.96	3.96	1.69	0.27	0.30	2.26	0.16	16.5	0.0	0.00	
27	10.300	29.36	0.7	1165.9	0.0	2.44	3.96	3.96	1.70	0.27	0.30	2.28	0.16	16.6	0.0	0.00	
28	10.200	29.37	0.7	1165.7	0.0	2.43	3.96	3.96	1.71	0.27	0.30	2.29	0.16	16.6	0.0	0.00	
29	10.100	29.39	0.7	1165.5	0.0	2.43	3.96	3.96	1.72	0.27	0.30	2.30	0.16	16.6	0.0	0.00	
30	10.000	29.40	0.7	1165.3	0.0	2.42	3.96	3.96	1.73	0.28	0.30	2.31	0.15	16.6	0.0	0.00	
31	9.900	29.41	0.7	1165.1	0.0	2.42	3.95	3.95	1.74	0.28	0.30	2.32	0.15	16.6	0.0	0.00	
32	9.800	29.43	0.7	1164.9	0.0	2.41	3.94	3.94	1.75	0.28	0.30	2.32	0.15	16.6	0.0	0.00	
33	9.700	29.44	0.7	1164.7	0.0	2.41	3.93	3.93	1.75	0.28	0.30	2.32	0.15	16.6	0.0	0.00	
34	9.600	29.45	0.7	1164.5	0.0	2.41	3.92	3.92	1.75	0.27	0.29	2.32	0.15	16.6	0.0	0.00	
35	9.500	29.47	0.7	1164.3	0.0	2.41	3.90	3.90	1.76	0.27	0.29	2.32	0.15	16.5	0.0	0.00	
36	9.400	29.48	0.7	1164.1	0.0	2.40	3.88	3.88	1.76	0.27	0.29	2.32	0.15	16.5	0.0	0.00	
37	9.300	29.49	0.7	1163.9	0.0	2.40	3.85	3.85	1.75	0.27	0.29	2.31	0.15	16.5	0.0	0.00	
38	9.200	29.51	0.7	1163.7	0.0	2.40	3.83	3.83	1.75	0.27	0.28	2.30	0.15	16.5	0.0	0.00	
39	9.100	29.52	0.7	1163.4	0.0	2.41	3.79	3.79	1.75	0.27	0.28	2.30	0.15	16.5	0.0	0.00	
40	9.000	29.53	0.7	1163.2	0.0	2.41	3.75	3.75	1.74	0.27	0.28	2.28	0.15	16.5	0.0	0.00	
41	8.900	29.55	0.7	1163.0	0.0	2.41	3.71	3.71	1.73	0.26	0.27	2.27	0.15	16.5	0.0	0.00	
42	8.800	29.56	0.7	1162.8	0.0	2.42	3.66	3.66	1.72	0.26	0.27	2.25	0.14	16.5	0.0	0.00	
43	8.700	29.57	0.7	1162.6	0.0	2.42	3.60	3.60	1.71	0.26	0.27	2.24	0.14	16.5	0.0	0.00	
44	8.600	29.59	0.7	1162.4	0.0	2.43	3.54	3.54	1.70	0.26	0.26	2.22	0.14	16.6	0.0	0.00	
45	8.500	29.60	0.7	1162.2	0.0	2.43	3.46	3.46	1.68	0.25	0.26	2.19	0.14	16.7	0.0	0.00	

* CM-I = cond
umhos
** G/CU M

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N	ALG P/NP TOT	ALG GROW 1/DA	ALG RESP 1/DA	A/R MAC	MAC MAC	MAC GROW 1/DA	M/P/R RESP RATIO
				LIM LIM LIM	LIM LIM LIM	LIM LIM LIM	LIM LIM LIM	RATIO	LIM LIM LIM	LIM LIM LIM	
16	11.400	0.78	0.55	0.26 .26 .74 .85 .79 .20	0.42	0.15	2.19 .00 .00 .00 .00 .00	.00	.00	.00	0.00
17	11.300	0.78	0.55	0.26 .26 .74 .85 .79 .20	0.42	0.15	2.19 .00 .00 .00 .00 .00	.00	.00	.00	0.00
18	11.200	0.78	0.55	0.26 .26 .74 .85 .79 .20	0.42	0.15	2.19 .00 .00 .00 .00 .00	.00	.00	.00	0.00
19	11.100	0.78	0.55	0.26 .26 .74 .85 .79 .20	0.42	0.15	2.18 .00 .00 .00 .00 .00	.00	.00	.00	0.00
20	11.000	0.78	0.54	0.26 .26 .74 .85 .79 .20	0.42	0.15	2.18 .00 .00 .00 .00 .00	.00	.00	.00	0.00
21	10.900	0.78	0.54	0.26 .26 .74 .85 .79 .20	0.42	0.15	2.18 .00 .00 .00 .00 .00	.00	.00	.00	0.00
22	10.800	0.78	0.54	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.18 .00 .00 .00 .00 .00	.00	.00	.00	0.00
23	10.700	0.78	0.53	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.17 .00 .00 .00 .00 .00	.00	.00	.00	0.00
24	10.600	0.77	0.53	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.17 .00 .00 .00 .00 .00	.00	.00	.00	0.00
25	10.500	0.77	0.53	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.17 .00 .00 .00 .00 .00	.00	.00	.00	0.00
26	10.400	0.77	0.53	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.17 .00 .00 .00 .00 .00	.00	.00	.00	0.00
27	10.300	0.77	0.53	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.17 .00 .00 .00 .00 .00	.00	.00	.00	0.00
28	10.200	0.77	0.52	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.16 .00 .00 .00 .00 .00	.00	.00	.00	0.00
29	10.100	0.77	0.52	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.16 .00 .00 .00 .00 .00	.00	.00	.00	0.00
30	10.000	0.77	0.52	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.16 .00 .00 .00 .00 .00	.00	.00	.00	0.00
31	9.900	0.77	0.52	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.16 .00 .00 .00 .00 .00	.00	.00	.00	0.00
32	9.800	0.77	0.52	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.16 .00 .00 .00 .00 .00	.00	.00	.00	0.00
33	9.700	0.77	0.52	0.26 .25 .74 .84 .79 .20	0.42	0.15	2.16 .00 .00 .00 .00 .00	.00	.00	.00	0.00
34	9.600	0.77	0.52	0.26 .25 .74 .83 .78 .20	0.42	0.15	2.15 .00 .00 .00 .00 .00	.00	.00	.00	0.00
35	9.500	0.77	0.52	0.26 .25 .74 .83 .78 .20	0.42	0.15	2.15 .00 .00 .00 .00 .00	.00	.00	.00	0.00
36	9.400	0.77	0.51	0.26 .25 .74 .83 .78 .20	0.42	0.15	2.15 .00 .00 .00 .00 .00	.00	.00	.00	0.00
37	9.300	0.77	0.51	0.26 .25 .74 .83 .78 .20	0.41	0.15	2.15 .00 .00 .00 .00 .00	.00	.00	.00	0.00
38	9.200	0.77	0.51	0.26 .25 .74 .83 .78 .20	0.41	0.15	2.14 .00 .00 .00 .00 .00	.00	.00	.00	0.00
39	9.100	0.77	0.51	0.26 .25 .73 .83 .78 .20	0.41	0.15	2.14 .00 .00 .00 .00 .00	.00	.00	.00	0.00
40	9.000	0.77	0.51	0.26 .25 .73 .83 .78 .20	0.41	0.15	2.13 .00 .00 .00 .00 .00	.00	.00	.00	0.00
41	8.900	0.77	0.51	0.26 .25 .73 .83 .78 .20	0.41	0.16	2.13 .00 .00 .00 .00 .00	.00	.00	.00	0.00
42	8.800	0.77	0.51	0.26 .25 .73 .83 .77 .20	0.41	0.16	2.13 .00 .00 .00 .00 .00	.00	.00	.00	0.00
43	8.700	0.77	0.51	0.26 .25 .72 .83 .77 .20	0.41	0.16	2.12 .00 .00 .00 .00 .00	.00	.00	.00	0.00
44	8.600	0.77	0.51	0.26 .25 .72 .83 .77 .20	0.41	0.16	2.11 .00 .00 .00 .00 .00	.00	.00	.00	0.00
45	8.500	0.77	0.51	0.26 .25 .72 .83 .77 .20	0.41	0.16	2.11 .00 .00 .00 .00 .00	.00	.00	.00	0.00
	20 DEG C RATE			0.50		1.35	0.10			0.00	0.00

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

¹ FINAL REPORT REACH NO. 3 Bayou Verret Bayou Verret #3

***** REACH INPUTS *****												
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	COLI UG/L	NCM #/100ML *
46	UPR RCH	0.0021	29.60	0.67	1162.2	0.0	2.43	3.46	1.68	0.25	0.14	16.7 0. 0.00

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Calibration run

HYDRAULIC PARAMETER VALUES											
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVECT VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M
46	8.50	8.40	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
47	8.40	8.30	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
48	8.30	8.20	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
49	8.20	8.10	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
50	8.10	8.00	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
51	8.00	7.90	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
52	7.90	7.80	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
53	7.80	7.70	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
54	7.70	7.60	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
55	7.60	7.50	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
56	7.50	7.40	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
57	7.40	7.30	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
58	7.30	7.20	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
59	7.20	7.10	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
60	7.10	7.00	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
61	7.00	6.90	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
62	6.90	6.80	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
63	6.80	6.70	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
64	6.70	6.60	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
65	6.60	6.50	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
66	6.50	6.40	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
67	6.40	6.30	0.0021	0.0	0.000	102.25	2.10	88.3	18553.	8834.7	185.5
TOT AVG CUM				0.000	6464.29	2249.58	2.10	88.3	408163.	194363.5	185.5

BIOLOGICAL AND PHYSICAL COEFFICIENTS *****																
ELEM NO.	ENDING DIST	SAT D.O.	RELAER RATE	CBOD DECAy	ANBOD SETT	CBOD DECAy	ORGN SOD	ORGN DECAY	SETT DECAY	NH3 SRCE	PO4 RATE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	
	MG/L		1/DA	1/DA	1/DA	*	1/DA	*	1/DA	*	1/DA	*	**	1/DA	1/DA	1/DA
46	8.400	7.57	0.37	0.08	0.00	0.00	4.15	4.15	0.01	0.00	0.07	0.01	0.43	0.00	0.00	0.00
47	8.300	7.57	0.37	0.08	0.00	0.00	4.17	4.17	0.01	0.00	0.07	0.01	0.43	0.00	0.00	0.00
48	8.200	7.56	0.37	0.08	0.00	0.00	4.19	4.19	0.01	0.00	0.07	0.01	0.43	0.00	0.00	0.00
49	8.100	7.55	0.37	0.08	0.00	0.00	4.21	4.21	0.01	0.00	0.07	0.01	0.43	0.00	0.00	0.00
50	8.000	7.54	0.37	0.08	0.00	0.00	4.23	4.23	0.01	0.00	0.07	0.01	0.43	0.00	0.00	0.00
51	7.900	7.53	0.37	0.08	0.00	0.00	4.24	4.24	0.01	0.00	0.07	0.01	0.43	0.00	0.00	0.00
52	7.800	7.53	0.37	0.08	0.00	0.00	4.26	4.26	0.01	0.00	0.07	0.01	0.44	0.00	0.00	0.00
53	7.700	7.52	0.37	0.08	0.00	0.00	4.28	4.28	0.01	0.00	0.07	0.01	0.44	0.00	0.00	0.00
54	7.600	7.51	0.37	0.08	0.00	0.00	4.29	4.29	0.01	0.00	0.07	0.01	0.44	0.00	0.00	0.00
55	7.500	7.50	0.37	0.08	0.00	0.00	4.31	4.31	0.01	0.00	0.07	0.01	0.44	0.00	0.00	0.00
56	7.400	7.50	0.37	0.08	0.00	0.00	4.33	4.33	0.01	0.00	0.07	0.01	0.45	0.00	0.00	0.00
57	7.300	7.49	0.38	0.08	0.00	0.00	4.34	4.34	0.01	0.00	0.07	0.01	0.45	0.00	0.00	0.00
58	7.200	7.48	0.38	0.08	0.00	0.00	4.35	4.35	0.01	0.00	0.08	0.01	0.45	0.00	0.00	0.00
59	7.100	7.47	0.38	0.08	0.00	0.00	4.36	4.36	0.01	0.00	0.08	0.01	0.45	0.00	0.00	0.00
60	7.000	7.46	0.38	0.08	0.00	0.00	4.37	4.37	0.01	0.00	0.08	0.01	0.46	0.00	0.00	0.00
61	6.900	7.46	0.38	0.08	0.00	0.00	4.38	4.38	0.01	0.00	0.08	0.01	0.46	0.00	0.00	0.00
62	6.800	7.45	0.38	0.08	0.00	0.00	4.38	4.38	0.01	0.00	0.08	0.01	0.46	0.00	0.00	0.00
63	6.700	7.44	0.38	0.08	0.00	0.00	4.38	4.38	0.01	0.00	0.08	0.01	0.45	0.00	0.00	0.00
64	6.600	7.43	0.38	0.08	0.00	0.00	4.37	4.37	0.01	0.00	0.09	0.01	0.45	0.00	0.00	0.00
65	6.500	7.42	0.38	0.08	0.00	0.00	4.35	4.35	0.01	0.00	0.09	0.01	0.44	0.00	0.00	0.00
66	6.400	7.42	0.38	0.08	0.00	0.00	4.33	4.33	0.01	0.00	0.09	0.01	0.43	0.00	0.00	0.00
67	6.300	7.41	0.38	0.08	0.00	0.00	4.31	4.31	0.01	0.00	0.10	0.01	0.41	0.00	0.00	0.00
20 DEG C RATE				0.05	0.00		1.80	1.80	0.01	0.00	0.05	0.00	0.01	0.00	0.00	0.00
AVG 20 DEG C RATE				0.31	0.00					0.00						0.00
* G/SQ M/D							** MG/L/DAY									

* * MG/L/DAY

WATER QUALITY CONSTITUENT VALUES																	
ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
46	8.400	29.66	0.7	1162.0	0.0	2.44	3.38	3.38	1.67	0.25	0.26	2.17	0.14	16.8	0.0	0.	0.00
47	8.300	29.73	0.7	1161.8	0.0	2.44	3.31	3.31	1.65	0.24	0.25	2.15	0.14	16.9	0.0	0.	0.00
48	8.200	29.79	0.6	1161.6	0.0	2.44	3.25	3.25	1.64	0.24	0.25	2.13	0.14	17.0	0.0	0.	0.00
49	8.100	29.85	0.6	1161.4	0.0	2.44	3.19	3.19	1.62	0.24	0.25	2.10	0.14	17.0	0.0	0.	0.00
50	8.000	29.92	0.6	1161.2	0.0	2.44	3.14	3.14	1.60	0.23	0.25	2.08	0.14	17.1	0.0	0.	0.00
51	7.900	29.98	0.6	1161.0	0.0	2.44	3.10	3.10	1.58	0.23	0.25	2.06	0.14	17.2	0.0	0.	0.00
52	7.800	30.05	0.6	1160.8	0.0	2.44	3.07	3.07	1.57	0.23	0.25	2.04	0.14	17.2	0.0	0.	0.00
53	7.700	30.11	0.6	1160.6	0.0	2.45	3.04	3.04	1.55	0.22	0.25	2.02	0.14	17.2	0.0	0.	0.00
54	7.600	30.17	0.6	1160.4	0.0	2.45	3.01	3.01	1.53	0.22	0.25	2.00	0.14	17.3	0.0	0.	0.00
55	7.500	30.24	0.6	1160.2	0.0	2.47	2.99	2.99	1.50	0.22	0.26	1.98	0.14	17.3	0.0	0.	0.00
56	7.400	30.30	0.6	1160.0	0.0	2.49	2.97	2.97	1.48	0.22	0.27	1.96	0.14	17.3	0.0	0.	0.00
57	7.300	30.36	0.6	1159.8	0.0	2.52	2.96	2.96	1.46	0.21	0.27	1.95	0.14	17.3	0.0	0.	0.00
58	7.200	30.43	0.6	1159.6	0.0	2.56	2.95	2.95	1.44	0.21	0.28	1.93	0.14	17.2	0.0	0.	0.00
59	7.100	30.49	0.6	1159.4	0.0	2.62	2.94	2.94	1.41	0.21	0.29	1.91	0.14	17.1	0.0	0.	0.00
60	7.000	30.55	0.6	1159.2	0.0	2.71	2.94	2.94	1.39	0.20	0.31	1.90	0.14	17.0	0.0	0.	0.00
61	6.900	30.62	0.6	1159.0	0.0	2.83	2.95	2.95	1.36	0.20	0.32	1.88	0.14	16.8	0.0	0.	0.00
62	6.800	30.68	0.6	1158.7	0.0	2.99	2.96	2.96	1.33	0.20	0.34	1.87	0.14	16.5	0.0	0.	0.00
63	6.700	30.75	0.5	1158.5	0.0	3.22	2.97	2.97	1.30	0.19	0.36	1.85	0.14	16.2	0.0	0.	0.00
64	6.600	30.81	0.5	1158.3	0.0	3.52	2.99	2.99	1.27	0.19	0.38	1.84	0.14	15.7	0.0	0.	0.00
65	6.500	30.87	0.5	1158.1	0.0	3.94	3.01	3.01	1.24	0.18	0.41	1.83	0.14	15.1	0.0	0.	0.00
66	6.400	30.94	0.5	1157.9	0.0	4.50	3.04	3.04	1.20	0.18	0.44	1.81	0.14	14.5	0.0	0.	0.00
67	6.300	31.00	0.5	1157.7	0.0	5.26	3.08	3.08	1.16	0.17	0.47	1.80	0.14	13.6	0.0	0.	0.00

* CM-I = cond
umhos
** G/CU M

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N/DA	ALG LIT LIM	ALG P/R MAC GROW 1/DA	ALG RESP RATIO 1/DA	MAC LIM LIM	MAC P/R MAC GROW 1/DA	MAC RESP RATIO 1/DA	MAC P/R MAC GROW 1/DA
				N P LIM	LIM	N P LIM	LIM	LIM	N P LIM	LIM	N P LIM
46	8.400	0.77	0.51	0.30	.29 .72	.83 .77	.22	0.46	0.16	2.36 .00	.00 .00
47	8.300	0.77	0.51	0.30	.29 .71	.82 .76	.22	0.46	0.16	2.35 .00	.00 .00
48	8.200	0.77	0.51	0.30	.29 .71	.82 .76	.22	0.46	0.16	2.35 .00	.00 .00
49	8.100	0.77	0.51	0.30	.28 .71	.82 .76	.22	0.46	0.16	2.34 .00	.00 .00
50	8.000	0.77	0.51	0.30	.28 .71	.82 .76	.22	0.46	0.16	2.34 .00	.00 .00
51	7.900	0.77	0.52	0.30	.28 .71	.82 .76	.22	0.46	0.16	2.34 .00	.00 .00
52	7.800	0.77	0.52	0.30	.28 .70	.82 .76	.22	0.46	0.16	2.33 .00	.00 .00
53	7.700	0.77	0.53	0.30	.28 .70	.82 .76	.22	0.46	0.16	2.33 .00	.00 .00
54	7.600	0.77	0.53	0.30	.28 .70	.82 .76	.22	0.47	0.16	2.34 .00	.00 .00
55	7.500	0.77	0.54	0.30	.28 .71	.82 .76	.22	0.47	0.16	2.34 .00	.00 .00
56	7.400	0.77	0.55	0.30	.28 .71	.82 .76	.22	0.47	0.16	2.34 .00	.00 .00
57	7.300	0.77	0.56	0.30	.28 .71	.82 .76	.22	0.47	0.16	2.35 .00	.00 .00
58	7.200	0.77	0.57	0.30	.28 .71	.82 .76	.22	0.48	0.16	2.36 .00	.00 .00
59	7.100	0.77	0.59	0.31	.29 .71	.82 .76	.22	0.48	0.16	2.37 .00	.00 .00
60	7.000	0.77	0.60	0.31	.29 .72	.82 .77	.22	0.48	0.16	2.38 .00	.00 .00
61	6.900	0.77	0.62	0.31	.29 .72	.82 .77	.22	0.49	0.16	2.39 .00	.00 .00
62	6.800	0.77	0.63	0.31	.29 .73	.82 .77	.22	0.49	0.16	2.41 .00	.00 .00
63	6.700	0.78	0.65	0.31	.29 .73	.82 .78	.22	0.50	0.16	2.43 .00	.00 .00
64	6.600	0.78	0.67	0.31	.29 .74	.82 .78	.22	0.50	0.16	2.45 .00	.00 .00
65	6.500	0.79	0.69	0.31	.29 .75	.82 .78	.23	0.51	0.16	2.47 .00	.00 .00
66	6.400	0.79	0.71	0.31	.29 .75	.82 .79	.23	0.52	0.17	2.50 .00	.00 .00
67	6.300	0.80	0.73	0.31	.29 .76	.82 .79	.23	0.52	0.17	2.53 .00	.00 .00
20 DEG C RATE		0.50				1.35	0.10			0.00	0.00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

¹ FINAL REPORT REACH NO. 4 Bayou Verret Lake Cataouatche #1

REACH INPUTS *****															
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
68	UPR RCH	0.0021	31.00	0.52	1157.7	0.0	5.26	3.08	1.16	0.17	0.47	0.14	13.6	0.	0.00
68	WSTLD	0.9000	30.20	0.56	995.0	0.0	1.47	4.03	1.19	0.22	0.05	0.20	12.0	0.	0.00
68	WSTLD	10.0000	30.20	0.56	995.0	0.0	1.47	4.03	1.19	0.22	0.05	0.20	12.0	0.	0.00

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Calibration run

HYDRAULIC PARAMETER VALUES									
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	VOLUME CU M	SURFACE AREA SQ M
68	6.30	4.90	10.9021	100.0	0.002	10.47	2.20	3201.0	9859155.
TOT						10.47	2.20	3201.0	4481434.0
AVG						0.002			9859155.
CDM						6474.76			4481434.0

BIOLOGICAL AND PHYSICAL COEFFICIENTS									
ELEM NO.	ENDING SAT D.O.	REAER RATE MG/L	CBOD DECAY 1/DA	ANBOD SETT 1/DA	FULL SOD *	CORR DECAY *	ORGN SETT 1/DA	NH3 SRCE *	PO4 1/DA *
68	4.900	7.35	0.46	0.08	0.00	0.90	0.01	0.00	0.20
20 DEG C RATE			0.05		0.00	0.30	0.01		0.02
Avg 20 DEG C RATE			0.37		0.00				

* G/SQ M/D ** MG/L/DAY

WATER QUALITY CONSTITUENT VALUES									
ELEM NO.	ENDING TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L
68	4.900	31.40	0.8	1157.7	0.0	5.30	3.08	3.08	1.16
* CM-I = cond umhos									0.17
** G/CU M									0.47

CM-II =

NCM =

ALGAE AND MACROPHYTE DATA									
ELEM NO.	ENDING DIST KM	SECCHI DEPTH M	NITR PREF	ALG ALG ALG ALG ALG ALG SETT LIT N P N&P TOT 1/DA LIM LIM LIM LIM LIM LIM	GROW 1/DA	ALG RESP 1/DA	A/P/R MAC MAC MAC MAC MAC MAC RATIO N P N&P TOT LIM LIM LIM LIM LIM LIM	MAC GROW 1/DA	MAC RESP 1/DA
68	4.900	0.80	0.73	0.12 .28 .76 .82 .79 .22	0.30	0.17	1.44 .00 .00 .00 .00 .00	0.00	0.00
20 DEG C RATE				0.20		0.80	0.10		0.00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

¹ FINAL REPORT REACH NO. 5 Bayou Verret Lake Cataouatche #2

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Calibration run

		REACH INPUTS														
ELEM	TYPE	FLOW	TEMP	SALIN	CM-I	CM-II	DO	BOD	EBOD	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
NO.		CMS	DEG C	PPT	*	*	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	#/100ML	*
69	UPR RCH	10.9021	31.40	0.80	1157.7	0.0	5.30	3.08	3.08	1.16	0.17	0.47	0.14	13.6	0.	0.00

		HYDRAULIC PARAMETER VALUES														
ELEM	BEGGIN	ENDING	FLOW	PCT	ADVCTV	TRAVEL	DEPTH	WIDTH	VOLUME	SURFACE	X-SECT	TIDAL	TIDAL	DISPRSN	MEAN	
NO.	DIST	DIST	EFF	VELO	TIME	VELO	M/S	M/S	CU M	AREA	AREA	PRISM	VELO	VELO	VELO	
	KM	KM	CMS	M/S	DAY	M/S	M/S	M/S	CU M	SQ M	SQ M	CU M	M/S	SO M/S	M/S	
69	4.90	3.40	10.9021	100.0	0.001	21.81	2.40	5707.8	20547944.	8561643.0	13698.6	0.	0.000	2.600	0.001	
TOT						21.81			20547944.	8561643.0						
Avg						0.001			2.40	5707.8						
CUM						6496.57										

		BIOLOGICAL AND PHYSICAL COEFFICIENTS																
ELEM	ENDING	SAT	REAER	CBOD	CBOD	ANBOD	FULL	CORR	ORGN	ORGN	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	
NO.	DIST	D.O.	RATE	DECAY	DECAY	SETT	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	SRCE	PROD	PROD	DECAY	DECAY
				1/DA	1/DA	1/DA	1/DA	*	1/DA	1/DA	1/DA	*	*	*	**	**	1/DA	1/DA
69	3.400	7.39	0.42	0.08	0.00	0.00	0.27	0.27	0.01	0.00	0.20	0.02	0.00	0.00	0.08	0.00	0.00	0.00
20 DEG C RATE				0.05	0.05	0.00			0.00	0.01	0.10	0.01	0.00	0.00			0.00	0.00
AVG 20 DEG C RATE				0.34	0.00													
* G/SQ M/D																		

* G/SQ M/D ** MG/L/DAY

		WATER QUALITY CONSTITUENT VALUES																	
ELEM	ENDING	TEMP	SALIN	CM-I	CM-II	DO	BOD	EBOD	ORGN	NH3	NO3+2	TOTN	PHOS	CHL A	MACRO	COLI	NCM		
NO.	DIST	DEG C	PPT	*	*	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	#/100ML	*		
69	3.400	31.00	1.0	1252.0	0.0	6.15	2.88	2.88	1.17	0.16	0.60	1.93	0.11	13.2	0.0	0.	0.00		
CM-II =										NCM =									

* CM-I = cond
umhos
** G/CU M

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST M	SECCHI PREF	NITR	ALG SETT LIT N	ALG P	ALG N&P TOT	ALG GROW 1/DA	A/R MAC RESP 1/DA	MAC N&P TOT	MAC GROW 1/DA	MAC RESP 1/DA	M/P/R RATIO
69	3.400	0.80	0.79	0.11	.26	.79	.79	.21	0.27	0.17	1.31	0.00
20 DEG C RATE			0.20			0.80	0.10		0.00	0.00	0.00	0.00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

1 FINAL REPORT Bayou Verret
REACH NO. 6 Lake Cataouatche #3

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Calibration run

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
70	UPR RCH	10.9021	31.00	0.99	1252.0	0.0	6.15	2.88	2.88	1.17	0.16	0.60	0.11	13.2	0.

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
70	3.40	0.80	10.9021	100.0	0.001	37.81	2.50	5479.5	35616436.	14246574.0	13698.6	0.	0.000	2.600	0.001
TOT AVG CUM															
									37.81	35616436.	14246574.0	13698.6			
									0.001	6534.38					

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING SAT	REAER	CBOD DECAY 1/DA	ANBOD SETT 1/DA	FULL DECAY 1/DA	CORR SOD *	ORGN DECAY 1/DA	NR3 DECAY 1/DA	DEMIT SRCE *	PO4 SRCE 1/DA	ALG PROD **	MAC PROD **	COLI DECY 1/DA	NCM DECY 1/DA	SETT 1/DA
70	0.800	7.35	0.41	0.08	0.00	0.00	0.27	0.27	0.01	0.00	0.21	0.03	0.00	0.06	0.00
20 DEG C RATE			0.33	0.05	0.00	0.00	0.10	0.10	0.01	0.00	0.10	0.00	0.00	0.00	0.00

* G/SQ M/D ** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/l	MACRO **	COLI #/100ML	NCM *
70	0.800	31.30	1.0	1413.3	0.0	6.14	3.80	3.80	1.17	0.16	0.58	1.91	0.09	13.0	0.0	0.	0.00

* CM-I = Cond umhos
** G/CU M

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N	ALG P	ALG N&P TOT	GROW 1/DA	ALG RESP 1/DA	A P/R	MAC MAC MAC MAC	MAC N	MAC P&R	MAC RESP	MAC GROW	MAC 1/DA	MAC P/R RATIO
70	0.800	0.80	0.79	0.10	.25	.79	.74	.76	.19	0.26	0.17	1.24	.00	.00	0.00	0.00
20	DEG C RATE			0.20				0.80	0.10					0.00	0.00	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

¹ FINAL REPORT
REACH NO. 7
Bayou Verret
Lake Cataouatche #4

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *	
71	UPR RCH	10.9021	31.30	1.01	1413.3	0.0	6.14	3.80	3.80	1.17	0.16	0.58	0.09	13.0	0.	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGINN DIST KM	ENDING DIST KM	FLOW CMS	ADVCTV EFFF	TRAVEL TIME DAYS	DEPTH M	VOLUME CU M	SURFACE X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S			
71	0.80	0.00	10.9021	100.0	0.001	12.91	1.80	8443.1	12158055.	6754475.0	15197.6	0.	0.000	2.600	0.001
TOT AVG CUM			0.001		12.91	1.80	8443.1	12158055.	6754475.0	15197.6					
					6547.29										

BIOLOGICAL AND PHYSICAL COEFFICIENTS											
ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	CBOD RATE	ANBOD DECAY	FULL SETT	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	PO4 SRCE
					*	*	*	*	*	1/DA	
71	0.000	7.37	0.56	0.08	0.00	0.00	0.33	0.01	0.00	0.21	0.02
20 DEG C RATE	0.05	0.00	0.00	0.00	0.01	0.00	0.10	0.01	0.00	0.11	0.00
Avg 20 DEG C RATE	0.46	0.00	0.00	0.00	0.01	0.00	0.10	0.01	0.00	0.00	0.00
* G/SQ M/D	** MG/L/DAY										

WATER QUALITY CONSTITUENT VALUES											
ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L
71	0.000	31.20	0.9	1625.4	0.0	6.40	3.98	3.98	1.05	0.14	0.20
* CM-I = cond umhos					CM-II =						
** G/CU M	NCM =										

ALGAE AND MACROPHYTE DATA											
ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N 1/DA	ALG SETT LIT N 1/DA	ALG ALG N P 1/DA	ALG ALG N P 1/DA	P/R MAC GROW RESP	MAC RATIO LIT LIM	MAC LIM LIM	MAC TOT LIM
71	0.000	0.78	0.59	0.14	0.32	0.62	0.65	0.21	0.28	0.17	1.35
20 DEG C RATE				0.20				0.80	0.10		0.00
NOTE ON NITR PREF:	1. 0=N03 ; 0.0=NH3										

QUAL-TX Calibration for Lake Cataouatche, LA
Adjusted Calibration run

INPUT/OUTPUT LOADING SUMMARY

	FLOW CMS	DO KG/D	BOD KG/D	ORG-N KG/D	NH3-N KG/D	NO3-N KG/D	PHOS KG/D	CHL A KG/D	NCM
HEADWATER INFLOW	0.002	0.6	0.7	0.2	0.0	0.0	0.0	2.2	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT	0.000	0.0	21475.0	1349.5	207.2	47.1	188.4	11301.1	0.0
WASTELOADS	10.900	1384.4	3795.3	1120.7	0.0	0.0	0.0	0.0	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	-127.5	-185.3	-61.0	-14959.6	0.0
OUTFLOW THRU LOWER BNDRY	-10.902	-6030.0	-3751.6	-988.4	-45.7	-1251.9	-40.5	13812.1	0.0
DISPERSION THRU LOWER BNDRY		4.97.9	1682.8	-335.5					
REAERATION		45871.4							
BACKGROUND BENTHAL		-4388.5							
AEROBIC BOD DECAY		-23202.2	-23202.2						
BOD SETTLING		0.0	0.0						
ANAOEROBIC BOD DECAY		0.0	0.0	-1146.5	1146.5				
ORGANIC N HYDROLYSIS				0.0	-2507.5	2507.5			
ORGANIC N SETTLING					803.5	0.0			
NH3 DECRY		-10857.5							
BACKGROUND NH3 SOURCE			0.0						
DENITRIFICATION									
PHOSPHORUS SOURCE		28486.6							
ALGAE PHOTOSYNTHESIS		-21634.0							
ALGAE RESPIRATION		-10128.1							
ALGAE SETTLING		0.0							
MACRO PHOTOSYNTHESIS		0.0							
NCM DECAY		0.0							
NCM SETTLING		0.0							
TOTAL INPUTS	10.902	76241.0	26953.8	2470.4	3076.7	2554.6	333.0	321851.1	0.0
TOTAL OUTPUTS	-10.902	-76240.2	-26953.8	-2470.4	-3076.7	-2554.6	-333.0	-321843.3	0.0
NET CONVERGENCE ERROR	0.000	0.7	0.0	0.0	0.0	0.0	0.0	7.8	0.0
1 EXECUTION COMPLETED	1								

APPENDIX S

Adjusted Verification Output File Printout

TEXAS WATER COMMISSION WATER QUALITY STREAM MODEL
QUAL-TX VERSION 3.3 UPDATED DECEMBER 3, 1990

02/05/04
09:23:52

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
CNTROL01	QUAL-TX calibration for Lake Cataouatche, LA
CNTROL02	Adjusted Verification run
CNTROL03	YES
CNTROL04	ECHO
CNTROL05	NO
CNTROL06	CAFS
CNTROL07	NO
CNTROL08	INTE
CNTROL09	FINA
CNTROL10	YES
	LOAD
	METR
	OXYG
	OVER
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
MDOOPT01	NO
MDOOPT02	NO
MDOOPT04	YES
MDOOPT04	NO
MDOOPT05	YES
MDOOPT06	YES
MDOOPT07	YES
MDOOPT08	YES
MDOOPT09	YES
MDOOPT10	NO
MDOOPT11	NO
MDOOPT12	NO
ENDATA02	

IN umhos

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	MAXIMUM ITERATION LIMIT	= 5000.00000
PROGRAM	TOTAL DAILY RADIATION	= 416.00000
PROGRAM	P RELAXATION COEFFICIENT	= 0.10000
PROGRAM	P ERROR CLOSURE LIMITS	= 0.00500
ENDATA03		

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
THETA	NH3 DECA	1.07000
THETA	BENTHAL	1.06500
THETA	ORGN DEC	1.02000
ENDATA04		

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
ENDATA05		

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
LIGHT	LIGHT SATURATION CONSTANT	= 10.00000
N HALF	N HALF SATURATION CONSTANT	= 0.20000
P HALF	P HALF SATURATION CONSTANT	= 0.03000
ENDATA06		

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
ENDATA07		

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH KM	END REACH KM	LENGTH KM	REACH KM	ELEM PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	B1	Bayou Verret #1	13.00 TO 11.50	0.1000 TO 8.50	1.50	15	1	15	
REACH ID	2	B2	Bayou Verret #2	11.50 TO 8.50	0.1000 TO 3.00	3.00	30	16	45	
REACH ID	3	B3	Bayou Verret #3	8.50 TO 6.30	0.1000 TO 4.90	2.20	22	46	67	
REACH ID	4	L1	Lake Cataouatche #1	6.30 TO 4.90	1.4000 TO 3.40	1.40	1	68	68	
REACH ID	5	L2	Lake Cataouatche #2	4.90 TO 3.40	1.5000 TO 0.80	1.50	1	69	69	
REACH ID	6	L3	Lake Cataouatche #3	3.40 TO 0.80	2.6000 TO 0.00	2.60	1	70	70	
REACH ID	7	L4	Lake Cataouatche #4	0.80 TO 0.00	0.8000 TO 0.80	0.80	1	71	71	
ENDATA08										

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	VELOCITY "A"	VELOCITY "B"	DEPTH "C"	DEPTH "D"	DEPTH "E"	MANNINGS "N"
HYDR-1	1	B1	0.00622000	1.000	2.700	0.000	0.000	0.000
HYDR-1	2	B2	0.00573000	1.000	2.400	0.000	0.000	0.000
HYDR-1	3	B3	0.00539000	1.000	2.100	0.000	0.000	0.000
HYDR-1	4	L1	0.00014200	1.000	2.200	0.000	0.000	0.000
HYDR-1	5	L2	0.00007300	1.000	2.400	0.000	0.000	0.000
HYDR-1	6	L3	0.00007300	1.000	2.500	0.000	0.000	0.000
HYDR-1	7	L4	0.00006580	1.000	1.800	0.000	0.000	0.000
ENDATA09								

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR-2	1	B1	1.00	0.500	0.000	0.000	0.000
HYDR-2	2	B2	1.00	0.500	0.000	0.000	0.000
HYDR-2	3	B3	1.00	0.500	0.000	0.000	0.000
HYDR-2	4	L1	1.00	2.600	0.000	0.000	0.000
HYDR-2	5	L2	1.00	2.600	0.000	0.000	0.000
HYDR-2	6	L3	1.00	2.600	0.000	0.000	0.000
HYDR-2	7	L4	1.00	2.600	0.000	0.000	0.000
ENDATA10							

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	B1	29.50	0.14	3.40	0.19	0.05	0.26	10.00	0.00
INITIAL	2	B2	27.40	0.15	2.50	0.22	0.05	0.24	10.00	0.00
INITIAL	3	B3	27.70	0.15	3.20	0.24	0.05	0.22	10.00	0.00
INITIAL	4	L1	28.10	0.20	6.60	0.23	0.05	0.12	10.00	0.00
INITIAL	5	L2	29.20	0.49	7.30	0.22	0.05	0.01	10.00	0.00
INITIAL	6	L3	28.50	0.64	8.60	0.21	0.05	0.01	10.00	0.00
INITIAL	7	L4	28.30	0.57	9.40	0.24	0.09	0.11	10.00	0.00
ENDATA11										

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGND SOD	AEROB BOD DECAY	BOD SETT	BOD TO SOD	ANAER BOD DECAY
COEF-1	1	B1	1.	0.240	0.000	0.000	1.600	0.050	0.000	0.000	0.000
COEF-1	2	B2	1.	0.280	0.000	0.000	1.800	0.050	0.000	0.000	0.000
COEF-1	3	B3	1.	0.310	0.000	0.000	1.800	0.050	0.000	0.000	0.000
COEF-1	4	L1	1.	0.340	0.000	0.000	0.300	0.050	0.000	0.000	0.000
COEF-1	5	L2	1.	0.310	0.000	0.000	0.000	0.050	0.000	0.000	0.000
COEF-1	6	L3	1.	0.300	0.000	0.000	0.000	0.050	0.000	0.000	0.000
COEF-1	7	L4	1.	0.410	0.000	0.000	0.000	0.050	0.000	0.000	0.000
ENDATA12											

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	ORG-N DECA	ORG-N SETT	ORG-N TO NH3	CONV SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	B1	0.01	0.00	1.00	0.05	0.00	0.01	0.01	0.00
COEF-2	2	B2	0.01	0.00	1.00	0.05	0.00	0.01	0.01	0.00
COEF-2	3	B3	0.01	0.00	1.00	0.05	0.00	0.01	0.01	0.00
COEF-2	4	L1	0.01	0.00	1.00	0.10	0.01	0.00	0.00	0.00
COEF-2	5	L2	0.01	0.00	1.00	0.10	0.01	0.00	0.00	0.00
COEF-2	6	L3	0.01	0.00	1.00	0.10	0.01	0.00	0.00	0.00
COEF-2	7	L4	0.01	0.00	1.00	0.10	0.01	0.00	0.00	0.00
ENDATA13										

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE: SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP
COEF-3	1	B1	1.00	0.060	0.50	0.08	1.35	0.10	0.00	0.00
COEF-3	2	B2	1.00	0.060	0.50	0.08	1.35	0.10	0.00	0.00
COEF-3	3	B3	1.00	0.060	0.50	0.08	1.35	0.10	0.00	0.00
COEF-3	4	L1	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
COEF-3	5	L2	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
COEF-3	6	L3	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
COEF-3	7	L4	1.00	0.060	0.20	0.08	0.80	0.10	0.00	0.00
ENDATA14										

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	INFLOW/DIST
ENDATA16								

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH ID	DO	BOD	ORG-N	NH3	NO3+2
ENDATA17						

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH ID	PHOS	CHL A	COLI	NCM
ENDATA18					

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH ID	BOD	ORG-N	COLI	NCM	DO
NONPOINT	1 B1	60.00	1.00	0.00	0.00	0.00
NONPOINT	2 B2	165.00	14.50	0.00	0.00	0.00
NONPOINT	3 B3	90.00	9.00	0.00	0.00	0.00
NONPOINT	4 L1	2000.00	100.00	0.00	0.00	0.00
NONPOINT	5 L2	3000.00	325.00	0.00	0.00	0.00
NONPOINT	6 L3	13280.00	750.00	0.00	0.00	0.00
NONPOINT	7 L4	2880.00	150.00	0.00	0.00	0.00
ENDATA19						

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW	TEMP	SALIN	CM-I	CM-II
HDWTR-1	1	Bayou Verret	0	1.68000	29.500	0.140	250.000	0.000
ENDATA20								

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO	BOD	ORG-N	NH3	NO3+2
HDWTR-2	1	Bayou Verret	3.30	2.62	1.31	0.19	0.05
ENDATA21							

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
HWTR-3	1	Bayou Verret	0.26	10.00	0.00	0.00

ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION	UPSTREAM	NAME
	ELEMENT	ELEMENT	
ENDATA23			

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	FLOW	TEMP	SAL	CM-I	CM-II
WSTLD-1	68	LUMBER CANAL	0.72000	26.600	0.170	300.000	0.000
WSTLD-1	68	DAVIS POND	8.00000	29.000	0.170	300.000	0.000

ENDATA24

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO	BOD	ORG-N	NH3	NITRIF	%
WSTLD-2	68	LOMBER CANAL	0.44	2.62	0.00	1.31	0.19	0.00
WSTLD-2	68	DAVIS POND	6.83	2.62	0.00	1.31	0.19	0.00

ENDATA25

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
WSTLD-3	68	LUMBER CANAL	0.26	10.00	0.00	0.00
WSTLD-3	68	DAVIS POND	0.26	10.00	0.00	0.00

ENDATA26

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 28.600 DEG C
LOWER BC	SALINITY	= 0.580 PPT
LOWER BC	CONSERVATIVE MATERIAL I	= 1025.000 umhos
LOWER BC	CONSERVATIVE MATERIAL II	= 0.000
LOWER BC	DISSOLVED OXYGEN	= 5.410 MG/L
LOWER BC	BIOCHEMICAL OXYGEN DEMAND	= 3.180 MG/L
LOWER BC	ORGANIC NITROGEN	= 0.750 MG/L
LOWER BC	AMMONIA NITROGEN	= 0.250 MG/L
LOWER BC	NITRATE + NITRITE NITROGEN	= 0.090 MG/L
LOWER BC	PHOSPHORUS	= 0.080 MG/L
LOWER BC	CHLOROPHYLL A	= 10.000 ug/L
LOWER BC	COLIFORM	= 0.000 #/100 ML
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.000
ENDATA27		

\$\$\$ DATA TYPE 28 (FLOW AUGMENTATION DATA) \$\$\$

CARD TYPE	REACH	AVAIL HDWS	TARGET
ENDATA28			

ORDER OF AVAIL SOURCES

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
ENDATA29									

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

ENDATA30

.....NO ERRORS DETECTED IN INPUT DATA

.....HYDRAULIC CALCULATIONS COMPLETED

.....TRIDIAGONAL MATRIX TERMS INITIALIZED

.....PHOTOSYNTHETIC RATES CONVERGENT IN 377 ITERATIONS

.....OXYGEN DEPENDENT RATES CONVERGENT IN 1 ITERATIONS

.....CONSTITUENT CALCULATIONS COMPLETED

FINAL REPORT
REACH NO. 1 Bayou Verret
Bayou Verret #1

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Verification run

REACH INPUTS											
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L
1	HDWTR	1.6800	29.50	0.14	250.0	0.0	3.30	2.62	1.31	0.19	0.05
***** HYDRAULIC PARAMETER VALUES *****											
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCVT VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M
1	13.00	12.90	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
2	12.90	12.80	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
3	12.80	12.70	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
4	12.70	12.60	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
5	12.60	12.50	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
6	12.50	12.40	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
7	12.40	12.30	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
8	12.30	12.20	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
9	12.20	12.10	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
10	12.10	12.00	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
11	12.00	11.90	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
12	11.90	11.80	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
13	11.80	11.70	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
14	11.70	11.60	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
15	11.60	11.50	1.6800	0.0	0.010	0.11	2.70	59.5	16077.	5954.5	160.8
TOT AVG CUM				0.010	1.66	2.70	59.5	241158.	89317.6	160.8	

BIOLOGICAL AND PHYSICAL COEFFICIENTS																			
ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	CBOD DECAY	CBOD SETT	ANBOD DECAY	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECENT	PO4 SRCE	AUG PROD	MAC PROD	COLI PROD	NCM DECAY	NCM DECENT	SETT 1/DA	
	MG/L	1/DA	1/DA	1/DA	*	1/DA	*	1/DA	1/DA	*	1/DA	*	*	**	*	1/DA	1/DA	1/DA	
1	12.900	7.64	0.29	0.08	0.00	0.00	3.38	0.01	0.00	0.08	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	
2	12.800	7.66	0.28	0.08	0.00	0.00	3.35	0.01	0.00	0.08	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
3	12.700	7.67	0.28	0.08	0.00	0.00	3.32	0.01	0.00	0.08	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
4	12.600	7.69	0.28	0.08	0.00	0.00	3.29	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
5	12.500	7.71	0.28	0.07	0.00	0.00	3.27	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
6	12.400	7.73	0.28	0.07	0.00	0.00	3.24	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
7	12.300	7.75	0.28	0.07	0.00	0.00	3.21	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
8	12.200	7.77	0.28	0.07	0.00	0.00	3.18	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
9	12.100	7.79	0.28	0.07	0.00	0.00	3.15	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
10	12.000	7.81	0.28	0.07	0.00	0.00	3.13	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
11	11.900	7.83	0.28	0.07	0.00	0.00	3.10	0.01	0.00	0.07	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	
12	11.800	7.85	0.28	0.07	0.00	0.00	3.07	0.01	0.00	0.07	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	
13	11.700	7.87	0.28	0.07	0.00	0.00	3.05	0.01	0.00	0.07	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	
14	11.600	7.89	0.28	0.07	0.00	0.00	3.02	0.01	0.00	0.07	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	
15	11.500	7.90	0.28	0.07	0.00	0.00	3.00	0.01	0.00	0.07	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	
20 DEG C RATE		0.05	0.00		1.60	0.01		0.05		0.00		0.01		0.00		0.00		0.00	
AVG 20 DEG C RATE		0.24	0.00		0.00	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
* G/SQ M/D		** MG/L/DAY																	

WATER QUALITY CONSTITUENT VALUES																
ELEM NO.	ENDING DIST	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO DO	BOD BOD	ORGN ORGN	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHLA ug/l	MACRO	COLI #/100ML	NCM *
1	12.900	29.36	0.1	250.0	0.0	3.28	2.63	2.63	1.31	0.19	0.05	1.55	0.26	9.9	0.0	0.00
2	12.800	29.22	0.1	250.0	0.0	3.27	2.63	2.63	1.31	0.19	0.05	1.55	0.26	9.9	0.0	0.00
3	12.700	29.08	0.1	250.0	0.0	3.26	2.64	2.64	1.31	0.19	0.05	1.55	0.26	9.8	0.0	0.00
4	12.600	28.94	0.1	250.0	0.0	3.25	2.64	2.64	1.30	0.19	0.06	1.55	0.26	9.8	0.0	0.00
5	12.500	28.80	0.1	250.0	0.0	3.25	2.65	2.65	1.30	0.19	0.06	1.55	0.26	9.8	0.0	0.00
6	12.400	28.66	0.1	250.0	0.0	3.24	2.66	2.66	1.30	0.19	0.06	1.55	0.26	9.7	0.0	0.00
7	12.300	28.52	0.1	250.0	0.0	3.24	2.66	2.66	1.30	0.19	0.06	1.55	0.26	9.7	0.0	0.00
8	12.200	28.38	0.1	250.0	0.0	3.24	2.67	2.67	1.30	0.19	0.06	1.55	0.26	9.6	0.0	0.00
9	12.100	28.24	0.1	250.0	0.0	3.24	2.67	2.67	1.30	0.19	0.06	1.55	0.26	9.6	0.0	0.00
10	12.000	28.10	0.1	250.0	0.0	3.24	2.68	2.68	1.30	0.19	0.06	1.55	0.26	9.6	0.0	0.00
11	11.900	27.96	0.1	250.0	0.0	3.24	2.69	2.69	1.30	0.19	0.06	1.55	0.26	9.5	0.0	0.00
12	11.800	27.82	0.1	250.0	0.0	3.24	2.69	2.69	1.29	0.19	0.06	1.55	0.26	9.5	0.0	0.00
13	11.700	27.68	0.1	250.0	0.0	3.25	2.70	2.70	1.29	0.19	0.06	1.55	0.26	9.4	0.0	0.00
14	11.600	27.54	0.1	250.0	0.0	3.25	2.71	2.71	1.29	0.19	0.07	1.55	0.26	9.4	0.0	0.00
15	11.500	27.40	0.2	250.0	0.0	3.26	2.72	2.72	1.29	0.19	0.07	1.55	0.26	9.4	0.0	0.00

* CM-I = cond umhos
** G/CU M

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH	NITR PREF M	ALG SETT LIT N 1/DA LIM LIM LIM	ALG SETT LIT N 1/DA LIM LIM LIM	ALG GROW 1/DA	ALG RESP 1/DA	A P/R MAC RATIO N &P TOT	MAC LIT N LIM LIM LIM	MAC N &P TOT LIM LIM LIM	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
1	12.900	0.83	0.21	0.23 .24 .55 .90 .68 .17	0.23 .24 .55 .90 .68 .17	0.35	0.15	1.80 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
2	12.800	0.83	0.22	0.23 .24 .55 .90 .68 .17	0.23 .24 .55 .90 .68 .17	0.34	0.15	1.80 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
3	12.700	0.84	0.22	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.34	0.15	1.80 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
4	12.600	0.84	0.23	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.34	0.15	1.80 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
5	12.500	0.84	0.23	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.34	0.15	1.81 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
6	12.400	0.84	0.23	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.34	0.15	1.81 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
7	12.300	0.84	0.24	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.34	0.15	1.81 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
8	12.200	0.84	0.24	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.33	0.15	1.82 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
9	12.100	0.84	0.24	0.23 .25 .55 .90 .68 .17	0.23 .25 .55 .90 .68 .17	0.33	0.15	1.82 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
10	12.000	0.84	0.25	0.22 .25 .55 .90 .69 .17	0.22 .25 .55 .90 .69 .17	0.33	0.15	1.82 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
11	11.900	0.84	0.25	0.22 .25 .56 .90 .69 .17	0.22 .25 .56 .90 .69 .17	0.33	0.14	1.82 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
12	11.800	0.84	0.25	0.22 .25 .56 .90 .69 .17	0.22 .25 .56 .90 .69 .17	0.33	0.14	1.82 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
13	11.700	0.84	0.26	0.22 .25 .56 .90 .69 .17	0.22 .25 .56 .90 .69 .17	0.33	0.14	1.83 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
14	11.600	0.84	0.26	0.22 .25 .56 .90 .69 .17	0.22 .25 .56 .90 .69 .17	0.32	0.14	1.83 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
15	11.500	0.84	0.26	0.22 .25 .56 .90 .69 .17	0.22 .25 .56 .90 .69 .17	0.32	0.14	1.83 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00	0.00 .00 .00 .00 .00 .00
	20 DEG C RATE			0.50		1.35	0.10				0.00	0.00	

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

¹ FINAL REPORT REACH NO. 2 Bayou Verret Bayou Verret #2

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
16	UPR RCH	1.6800	27.40	0.15	250.0	0.0	3.26	2.72	2.72	1.29	0.19	0.07	0.26	9.4	0.	0.00

***** HYDRAULIC PARAMETER VALUES *****													
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	MEAN VELO M/S
16	11.50	11.40	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
17	11.40	11.30	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
18	11.30	11.20	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.010
19	11.20	11.10	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.010
20	11.10	11.00	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.010
21	11.00	10.90	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.010
22	10.90	10.80	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
23	10.80	10.70	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
24	10.70	10.60	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
25	10.60	10.50	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
26	10.50	10.40	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
27	10.40	10.30	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
28	10.30	10.20	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
29	10.20	10.10	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
30	10.10	10.00	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
31	10.00	9.90	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
32	9.90	9.80	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
33	9.80	9.70	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
34	9.70	9.60	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
35	9.60	9.50	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
36	9.50	9.40	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
37	9.40	9.30	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
38	9.30	9.20	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
39	9.20	9.10	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
40	9.10	9.00	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
41	9.00	8.90	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
42	8.90	8.80	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
43	8.80	8.70	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
44	8.70	8.60	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
45	8.60	8.50	1.6800	0.0	0.010	0.12	2.40	72.7	17452.	7271.7	174.5	0.	0.500
				3.61	2.40	72.7			523560.	218150.1	174.5		
				0.010	5.27								

BIOLOGICAL AND PHYSICAL COEFFICIENTS *****																	
ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	CBOD CBOD	FULL ANBOD	CORR SOD	ORGN SOD	ORGN DECAY	SRCE SETT	NH3 DECAY	DENIT SRCE	PO4 RATE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
	MG/L	MG/L	1/DA	1/DA	1/DA	*	1/DA	1/DA	1/DA	1/DA	*	1/DA	*	**	1/DA	1/DA	1/DA
16	11.400	7.90	0.32	0.07	0.00	0.00	3.31	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
17	11.300	7.90	0.32	0.07	0.00	0.00	3.31	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
18	11.200	7.90	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
19	11.100	7.90	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
20	11.000	7.90	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
21	10.900	7.90	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
22	10.800	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
23	10.700	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
24	10.600	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
25	10.500	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
26	10.400	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
27	10.300	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
28	10.200	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
29	10.100	7.89	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
30	10.000	7.88	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
31	9.900	7.88	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
32	9.800	7.88	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
33	9.700	7.88	0.32	0.07	0.00	0.00	3.32	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
34	9.600	7.88	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
35	9.500	7.88	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
36	9.400	7.88	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
37	9.300	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
38	9.200	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
39	9.100	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
40	9.000	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
41	8.900	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
42	8.800	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
43	8.700	7.87	0.32	0.07	0.00	0.00	3.33	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
44	8.600	7.86	0.32	0.07	0.00	0.00	3.34	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
45	8.500	7.86	0.32	0.07	0.00	0.00	3.34	0.01	0.00	0.07	0.01	0.00	0.01	0.16	0.00	0.00	0.00
20 DEG C RATE		0.28	0.05	0.00	1.80	0.01	0.00	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE		0.28	0.05	0.00	1.80	0.01	0.00	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00

* G/SQ M/D ** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****												
ELEM NO.	ENDING DIST	TEMP DEG C	PPT	SALIN	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L
16	11.400	27.41	0.2	250.0	0.0	3.26	2.73	2.73	1.29	0.19	0.07	1.55
17	11.300	27.42	0.2	250.0	0.0	3.26	2.74	2.74	1.30	0.19	0.07	1.55
18	11.200	27.43	0.2	250.0	0.0	3.27	2.76	2.76	1.30	0.19	0.07	1.55
19	11.100	27.44	0.2	250.0	0.0	3.27	2.77	2.77	1.30	0.19	0.07	1.56
20	11.000	27.45	0.2	250.0	0.0	3.27	2.79	2.79	1.30	0.19	0.07	1.56
21	10.900	27.46	0.2	250.0	0.0	3.27	2.80	2.80	1.30	0.19	0.07	1.56
22	10.800	27.47	0.2	250.0	0.0	3.28	2.82	2.82	1.30	0.19	0.07	1.56
23	10.700	27.48	0.2	250.0	0.0	3.28	2.83	2.83	1.30	0.19	0.07	1.56
24	10.600	27.49	0.2	250.0	0.0	3.28	2.84	2.84	1.31	0.19	0.07	1.57
25	10.500	27.50	0.2	250.0	0.0	3.28	2.86	2.86	1.31	0.19	0.08	1.57
26	10.400	27.51	0.2	250.0	0.0	3.28	2.87	2.87	1.31	0.19	0.08	1.57
27	10.300	27.52	0.2	250.0	0.0	3.28	2.88	2.88	1.31	0.19	0.08	1.57
28	10.200	27.53	0.2	250.0	0.0	3.28	2.90	2.90	1.31	0.19	0.08	1.58
29	10.100	27.54	0.2	250.0	0.0	3.28	2.91	2.91	1.31	0.19	0.08	1.58
30	10.000	27.55	0.2	250.0	0.0	3.28	2.92	2.92	1.31	0.19	0.08	1.58
31	9.900	27.56	0.2	250.0	0.0	3.28	2.94	2.94	1.32	0.19	0.08	1.58
32	9.800	27.57	0.2	250.0	0.0	3.28	2.95	2.95	1.32	0.19	0.08	1.59
33	9.700	27.58	0.2	250.0	0.0	3.28	2.96	2.96	1.32	0.19	0.08	1.59
34	9.600	27.59	0.2	250.0	0.0	3.28	2.97	2.97	1.32	0.19	0.08	1.59
35	9.500	27.60	0.2	250.0	0.0	3.28	2.99	2.99	1.32	0.19	0.08	1.59
36	9.400	27.61	0.2	250.0	0.0	3.28	3.00	3.00	1.32	0.19	0.09	1.60
37	9.300	27.62	0.2	250.0	0.0	3.28	3.01	3.01	1.33	0.19	0.09	1.60
38	9.200	27.63	0.2	250.0	0.0	3.28	3.02	3.02	1.33	0.19	0.09	1.60
39	9.100	27.64	0.2	250.0	0.0	3.28	3.03	3.03	1.33	0.19	0.09	1.60
40	9.000	27.65	0.2	250.0	0.0	3.27	3.05	3.05	1.33	0.19	0.09	1.61
41	8.900	27.66	0.2	250.0	0.0	3.27	3.06	3.06	1.33	0.19	0.09	1.61
42	8.800	27.67	0.2	250.0	0.0	3.27	3.07	3.07	1.33	0.19	0.09	1.61
43	8.700	27.68	0.2	250.0	0.0	3.27	3.08	3.08	1.33	0.19	0.09	1.61
44	8.600	27.69	0.2	250.0	0.0	3.27	3.09	3.09	1.34	0.19	0.09	1.62
45	8.500	27.70	0.2	250.0	0.0	3.27	3.10	3.10	1.34	0.19	0.09	1.62

* CM-I = cond
umhos
** G/CU M

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI M	NITR PREF	ALG SETT LIT N 1/DA LIM LIM	ALG SETT LIT N P N&P TOT 1/DA LIM LIM	ALG GROW 1/DA	ALG RESP 1/DA	A/P/R MAC RATIO LIT N 1/DA	MAC MAC N P N&P TOT LIM LIM LIM	MAC MAC GROW 1/DA	MAC MAC RESP 1/DA	M/P/R RATIO
16	11.400	0.84	0.26	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.04 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
17	11.300	0.84	0.27	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.04 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
18	11.200	0.84	0.27	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.05 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
19	11.100	0.84	0.27	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.05 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
20	11.000	0.84	0.28	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.05 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
21	10.900	0.84	0.28	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.06 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
22	10.800	0.84	0.28	0.25 .27 .56 .90 .69 .19	0.25 .27 .56 .90 .69 .19	0.36	0.14	2.06 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
23	10.700	0.84	0.28	0.25 .27 .57 .90 .69 .19	0.25 .27 .57 .90 .69 .19	0.36	0.14	2.06 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
24	10.600	0.84	0.29	0.25 .27 .57 .90 .69 .19	0.25 .27 .57 .90 .69 .19	0.36	0.14	2.06 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
25	10.500	0.84	0.29	0.25 .27 .57 .90 .70 .19	0.25 .27 .57 .90 .70 .19	0.36	0.14	2.06 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
26	10.400	0.84	0.29	0.25 .27 .57 .90 .70 .19	0.25 .27 .57 .90 .70 .19	0.36	0.14	2.07 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
27	10.300	0.84	0.29	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.07 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
28	10.200	0.84	0.30	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.07 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
29	10.100	0.85	0.30	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.07 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
30	10.000	0.85	0.30	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.08 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
31	9.900	0.85	0.30	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.08 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
32	9.800	0.85	0.31	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.07 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
33	9.700	0.85	0.31	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.07 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
34	9.600	0.85	0.31	0.25 .28 .57 .90 .70 .19	0.25 .28 .57 .90 .70 .19	0.37	0.14	2.09 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
35	9.500	0.85	0.31	0.25 .28 .58 .90 .70 .19	0.25 .28 .58 .90 .70 .19	0.37	0.14	2.09 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
36	9.400	0.85	0.32	0.25 .28 .58 .90 .70 .19	0.25 .28 .58 .90 .70 .19	0.37	0.14	2.09 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
37	9.300	0.85	0.32	0.25 .28 .58 .90 .70 .19	0.25 .28 .58 .90 .70 .19	0.37	0.14	2.09 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
38	9.200	0.85	0.32	0.25 .28 .58 .90 .70 .19	0.25 .28 .58 .90 .70 .19	0.37	0.14	2.08 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
39	9.100	0.85	0.32	0.25 .28 .58 .90 .70 .19	0.25 .28 .58 .90 .70 .19	0.37	0.14	2.09 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
40	9.000	0.85	0.32	0.25 .28 .58 .90 .70 .19	0.25 .28 .58 .90 .70 .19	0.37	0.14	2.10 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
41	8.900	0.85	0.33	0.25 .28 .58 .90 .71 .19	0.25 .28 .58 .90 .71 .19	0.37	0.14	2.10 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
42	8.800	0.85	0.33	0.25 .28 .58 .90 .71 .19	0.25 .28 .58 .90 .71 .19	0.37	0.14	2.10 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
43	8.700	0.85	0.33	0.25 .28 .58 .90 .71 .20	0.25 .28 .58 .90 .71 .20	0.37	0.14	2.11 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
44	8.600	0.85	0.33	0.25 .28 .58 .90 .71 .20	0.25 .28 .58 .90 .71 .20	0.38	0.14	2.11 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
45	8.500	0.85	0.33	0.25 .28 .58 .90 .71 .20	0.25 .28 .58 .90 .71 .20	0.38	0.14	2.11 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00 .00 .00	0.00 .00
	20 DEG C RATE			0.50		1.35	0.10			0.00	0.00	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

¹ FINAL REPORT Bayou Verret
REACH NO. 3 Bayou Verret #3

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

¹ FINAL REPORT Bayou Verret
REACH NO. 3 Bayou Verret #3

REACH INPUTS *****															
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
46	UPR FCH	1.6800	27.70	0.15	250.0	0.0	3.27	3.10	1.34	0.19	0.09	0.27	8.6	0.	0.00

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Verification run

HYDRAULIC PARAMETER VALUES															
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVECTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
46	8.50	8.40	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
47	8.40	8.30	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
48	8.30	8.20	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
49	8.20	8.10	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
50	8.10	8.00	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
51	8.00	7.90	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
52	7.90	7.80	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
53	7.80	7.70	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
54	7.70	7.60	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
55	7.60	7.50	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
56	7.50	7.40	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
57	7.40	7.30	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
58	7.30	7.20	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
59	7.20	7.10	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
60	7.10	7.00	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
61	7.00	6.90	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
62	6.90	6.80	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
63	6.80	6.70	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
64	6.70	6.60	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
65	6.60	6.50	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
66	6.50	6.40	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
67	6.40	6.30	1.6800	0.0	0.009	0.13	2.10	88.3	18553.	8834.7	185.5	0.	0.000	0.500	0.009
TOT				2.81					408163.	194363.5	185.5				
AVG				0.009											
CUM				8.08											

BIOLOGICAL AND PHYSICAL COEFFICIENTS

卷之三

WATER QUALITY CONSTITUENT VALUES																	
ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/L	MACRO **	COLI #/100ML	NCM *
46	8.400	27.72	0.2	250.0	0.0	3.26	3.10	1.34	0.19	0.09	1.62	0.27	8.6	0.0	0.	0.00	
47	8.300	27.74	0.2	250.0	0.0	3.26	3.10	1.34	0.19	0.10	1.62	0.27	8.6	0.0	0.	0.00	
48	8.200	27.75	0.2	250.0	0.0	3.26	3.10	1.34	0.19	0.10	1.62	0.27	8.6	0.0	0.	0.00	
49	8.100	27.77	0.2	250.0	0.0	3.25	3.10	1.34	0.19	0.10	1.62	0.27	8.6	0.0	0.	0.00	
50	8.000	27.79	0.2	250.0	0.0	3.25	3.10	1.34	0.19	0.10	1.62	0.27	8.6	0.0	0.	0.00	
51	7.900	27.81	0.2	250.0	0.0	3.25	3.10	1.34	0.19	0.10	1.63	0.27	8.6	0.0	0.	0.00	
52	7.800	27.83	0.2	250.0	0.0	3.25	3.10	1.34	0.19	0.10	1.63	0.27	8.6	0.0	0.	0.00	
53	7.700	27.85	0.2	250.0	0.0	3.24	3.10	1.34	0.19	0.10	1.63	0.27	8.6	0.0	0.	0.00	
54	7.600	27.86	0.2	250.0	0.0	3.24	3.10	1.34	0.19	0.10	1.63	0.27	8.5	0.0	0.	0.00	
55	7.500	27.88	0.2	250.0	0.0	3.24	3.10	1.34	0.19	0.10	1.63	0.27	8.5	0.0	0.	0.00	
56	7.400	27.90	0.2	250.0	0.0	3.23	3.10	1.35	0.19	0.10	1.63	0.27	8.5	0.0	0.	0.00	
57	7.300	27.92	0.2	250.0	0.0	3.23	3.10	1.35	0.19	0.10	1.64	0.27	8.5	0.0	0.	0.00	
58	7.200	27.94	0.2	250.0	0.0	3.22	3.10	1.35	0.19	0.10	1.64	0.27	8.5	0.0	0.	0.00	
59	7.100	27.95	0.2	250.1	0.0	3.22	3.10	1.35	0.19	0.11	1.64	0.27	8.5	0.0	0.	0.00	
60	7.000	27.97	0.2	250.1	0.0	3.22	3.09	1.35	0.19	0.11	1.64	0.27	8.5	0.0	0.	0.00	
61	6.900	27.99	0.2	250.4	0.0	3.22	3.09	1.35	0.19	0.11	1.64	0.27	8.5	0.0	0.	0.00	
62	6.800	28.01	0.2	251.2	0.0	3.22	3.09	1.35	0.19	0.11	1.64	0.27	8.5	0.0	0.	0.00	
63	6.700	28.03	0.2	253.3	0.0	3.24	3.09	1.35	0.18	0.11	1.65	0.27	8.6	0.0	0.	0.00	
64	6.600	28.05	0.2	259.3	0.0	3.31	3.08	1.35	0.18	0.12	1.65	0.27	8.7	0.0	0.	0.00	
65	6.500	28.06	0.2	276.2	0.0	3.53	3.05	1.34	0.18	0.15	1.67	0.26	9.0	0.0	0.	0.00	
66	6.400	28.08	0.2	323.5	0.0	4.16	2.98	1.31	0.18	0.23	1.71	0.25	9.7	0.0	0.	0.00	
67	6.300	28.10	0.2	456.7	0.0	6.02	2.78	1.22	0.17	0.45	1.84	0.20	11.8	0.0	0.	0.00	

* CM-I = cond
umhos
** G/CU M

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N P	ALG N&P TOT	ALG GROW 1/DA	ALG RESP 1/DA	A P/R	MAC MAC MAC	MAC GROW 1/DA	MAC RESP 1/DA	MAC P/R
				LIM LIM LIM	LIM LIM LIM	1/DA	1/DA	LIT	N P	LIM LIM LIM	LIM LIM LIM	
46	8.400	0.85	0.34	0.29 .31 .58	.90 .71 .22	0.42	0.14	2.36	.00 .00 .00	0.00	0.00	0.00
47	8.300	0.85	0.34	0.29 .31 .58	.90 .71 .22	0.42	0.14	2.36	.00 .00 .00	0.00	0.00	0.00
48	8.200	0.85	0.34	0.29 .31 .59	.90 .71 .22	0.42	0.14	2.36	.00 .00 .00	0.00	0.00	0.00
49	8.100	0.85	0.34	0.29 .31 .59	.90 .71 .22	0.42	0.14	2.36	.00 .00 .00	0.00	0.00	0.00
50	8.000	0.85	0.34	0.29 .31 .59	.90 .71 .22	0.42	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
51	7.900	0.85	0.35	0.29 .31 .59	.90 .71 .22	0.42	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
52	7.800	0.85	0.35	0.29 .31 .59	.90 .71 .22	0.42	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
53	7.700	0.85	0.35	0.29 .31 .59	.90 .71 .22	0.42	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
54	7.600	0.85	0.35	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
55	7.500	0.85	0.35	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
56	7.400	0.85	0.36	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.37	.00 .00 .00	0.00	0.00	0.00
57	7.300	0.85	0.36	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.38	.00 .00 .00	0.00	0.00	0.00
58	7.200	0.85	0.36	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.38	.00 .00 .00	0.00	0.00	0.00
59	7.100	0.85	0.36	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.38	.00 .00 .00	0.00	0.00	0.00
60	7.000	0.85	0.36	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.38	.00 .00 .00	0.00	0.00	0.00
61	6.900	0.85	0.37	0.29 .31 .59	.90 .71 .22	0.43	0.14	2.38	.00 .00 .00	0.00	0.00	0.00
62	6.800	0.85	0.37	0.29 .31 .60	.90 .72 .22	0.43	0.14	2.39	.00 .00 .00	0.00	0.00	0.00
63	6.700	0.85	0.38	0.29 .31 .60	.90 .72 .22	0.43	0.14	2.39	.00 .00 .00	0.00	0.00	0.00
64	6.600	0.85	0.40	0.29 .31 .61	.90 .72 .22	0.44	0.14	2.41	.00 .00 .00	0.00	0.00	0.00
65	6.500	0.85	0.45	0.29 .31 .63	.90 .74 .23	0.44	0.14	2.45	.00 .00 .00	0.00	0.00	0.00
66	6.400	0.84	0.56	0.29 .30 .67	.89 .77 .23	0.46	0.14	2.53	.00 .00 .00	0.00	0.00	0.00
67	6.300	0.82	0.73	0.29 .30 .75	.87 .81 .24	0.48	0.15	2.63	.00 .00 .00	0.00	0.00	0.00
20	DEG C RATE			0.50		1.35	0.10			0.00	0.00	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

¹ FINAL REPORT Bayou Verret
REACH NO. 4 Lake Cataouatche #1

REACH INPUTS *****															
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALT PPT	CN-I *	CN-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
68	UPR RCH	1.6800	28.10	0.20	456.7	0.0	6.02	2.78	1.22	0.17	0.45	0.20	11.8	0.	0.00
68	WSTLD	0.7200	26.60	0.17	300.0	0.0	0.44	2.62	1.31	0.19	0.05	0.26	10.0	0.	0.00
68	WSTLD	8.0000	29.00	0.17	300.0	0.0	6.83	2.62	1.31	0.19	0.05	0.26	10.0	0.	0.00

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Verification run

HYDRAULIC PARAMETER VALUES											
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M
68	6.30	4.90	10.4000	83.8	0.001	10.97	2.20	3201.0	9859155.	4481434.0	7042.3
TOT AVG CUM					0.001	10.97	2.20	3201.0	9859155.	4481434.0	7042.3
					19.05					0. 0.000	2.600 0.001

BIOLOGICAL AND PHYSICAL COEFFICIENTS											
ELEM NO.	ENDING SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	ANBOD SETT 1/DA	FULL SOD *	CORR DECAY *	ORGN SRCE *	NH3 RATE 1/DA	PO4 SRCE *	ALG PROD *	MAC DECAY *
68	4.900	7.64	0.40	0.08	0.00	0.78	0.01	0.00	0.18	0.02	0.00
20 DEG C RATE			0.34	0.05	0.00	0.30	0.01	0.00	0.11	0.00	0.00
Avg 20 DEG C RATE						0.10	0.01	0.00		0.00	0.00
* G/SQ M/D											
** G/CU M/DAY											

WATER QUALITY CONSTITUENT VALUES											
ELEM NO.	ENDING DIST KM	TEMP DEG C	SALIN PPT	CM-I	CM-II	DO MG/L	BOD MG/L	EEOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L
68	4.900	29.20	0.5	471.9	0.0	6.24	2.75	2.75	1.21	0.17	0.47
* CM-I = Cond umhos											
** G/CU M											

ALGAE AND MACROPHYTE DATA											
ELEM NO.	ENDING DIST KM	SECCHI DEPTH M	NITR PREF	ALG ALG ALG ALG ALG ALG	DO N & P TOT	GROW RESP 1/DA	A/R MAC MAC MAC MAC MAC	MAC N P/TOT LIM LIM LIM LIM LIM LIM	GROW RESP 1/DA	MAC M P/R RATIO	
68	4.900	0.81	0.74	0.11 .29 .76 .87 .81 .23	0.28	0.15	1.48 .00 .00 .00 .00 .00	0.00	0.00	0.00	
20 DEG C RATE				0.20		0.80	0.10		0.00	0.00	

NOTE ON NITR PREF: 1. 0=NO₃ ; 0. 0=NH₃

¹ FINAL REPORT REACH NO. 5 Bayou Verret Lake Cataouatche #2

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Verification run

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
69	UPR RCH	10.4000	29.20	0.49	471.9	0.0	6.24	2.75	2.75	1.21	0.17	0.47	0.19	12.0	0.	0.00
TOT																
AVG																
CUM																

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL CU M	DISPNSN SQ M/S	MEAN VELO M/S	MEAN VELO M/S
69	4.90	3.40	10.4000	83.8	0.001	22.87	2.40	5707.8	20547944.	8561643.0	13698.6	0.	0.000	2.600	0.001	
TOT																
AVG																
CUM																

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST D.O. MG/L	SAT D.O. MG/L	REAER RATE 1/DA	CBOD RATE 1/DA	ANBOD SETT 1/DA	FULL SOD *	CORR SOD *	ORGN DECAY 1/DA	ORGN SETT 1/DA	PO4 SRCE *	DENIT DECAY 1/DA	SRCE *	PROD 1/DA	ALG PROD *	MAC FROD *	COLI DECAY 1/DA	NCM SETT 1/DA
69	3.400	7.73	0.36	0.07	0.00	0.00	0.24	0.01	0.00	0.17	0.02	0.00	0.00	0.08	0.00	0.00	0.00
20 DEG C RATE																	
Avg 20 DEG C RATE																	
*	G/SQ M/D																

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST DEG C	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/l	MACRO ug/l	COLI #/100ML	NCM *
69	3.400	28.50	0.6	571.5	0.0	6.62	2.83	2.83	1.18	0.16	0.60	1.94	0.16	12.1	0.0	0.	0.00
CM-II =																	
CM-I = cond umhos																	
** G/CU M																	

* CM-I = cond
umhos

** G/CU M

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST M	SECCHI PREF	NITR SETT LIT N P	ALG ALG ALG ALG ALG ALG	GROW 1/DA	ALG RESP 1/DA	P/R MAC	MAC MAC MAC	MAC GROW 1/DA	MAC RESP 1/DA	M P/R RATIO
69	3.400	0.81	0.79	0.10 .27 .79 .84 .82 .22	0.26	0.15	1.38 .00 .00 .00 .00 .00	.00	0.00	0.00	0.00
20 DEG C RATE				0.20		0.80	0.10		0.00	0.00	

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

1 FINAL REPORT Bayou Verret
REACH NO. 6 Lake Cataouatche #3

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
70	UPR RCH	10.4000	28.50	0.64	571.5	0.0	6.62	2.83	2.83	1.18	0.16	0.60	0.16	12.1	0. 0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	PRISM CU M	TIDAL PRISM M/S	DISPRSN SQ M/S	MEAN VELO M/S	MEAN VELO M/S
70	3.40	0.80	10.4000	83.8	0.001	39.64	2.50	5479.5	35616436.	14246574.0	13698.6	0.	0.000	2.600	0.001
TOT AVG CUM				0.001		39.64	2.50	5479.5	35616436.	14246574.0	13698.6				
						81.56									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST MG/L	SAT D.O.	REAER RATE 1/DA	CBOD DECAY 1/DA	ANBOD SETT 1/DA	FULL DECAY 1/DA	CORR SOD *	ORGN DECAY 1/DA	NH3 DECAY 1/DA	DENIT SRCE *	PO4 SRCE 1/DA	ALG PROD **	MAC PROD **	COLI PROD **	NCM DECAY 1/DA	NCM DECAY 1/DA	SETT 1/DA
70	0.800	7.76	0.35	0.07	0.00	0.00	0.22	0.01	0.00	0.17	0.02	0.00	0.07	0.00	0.00	0.00	
20 DEG C RATE	Avg 20	DEG C RATE	0.30	0.05	0.00	0.00	0.00	0.01	0.00	0.10	0.01	0.00	0.00	0.00	0.00	0.00	
* G/SQ M/D				** MG/L/DAY													

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/l	MACRO **	COLI #/100ML	NCM *
70	0.800	28.30	0.6	738.9	0.0	6.50	3.82	3.82	1.10	0.17	0.59	1.86	0.12	11.3	0.0	0.	0.00

* CM-I = Cond umhos
** G/CU M

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N	ALG P N	ALG N&P TOT	GROW 1/DA	ALG 1/DA	A/P/R	MAC RATIO LIT N	MAC P	MAC N&P TOT	GROW 1/DA	MAC 1/DA	M P/R RESP RATIO
70	0.800	0.82	0.78	0.10	26	79	.80	.21	0.24	0.15	1.33	0.00	0.00	0.00	0.00
20	DEG C RATE			0.20				0.80	0.10				0.00	0.00	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

¹ FINAL REPORT Bayou Verret
REACH NO. 7 Lake Cataouatche #4

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI ug/l	NCM *
71	UPR RCH	10.4000	28.30	0.57	738.9	0.0	6.50	3.82	3.82	1.10	0.17	0.59	0.12	11.3	0.	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	ADVCNTY EFF	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S	
71	0.80	0.00	10.4000	83.8	0.001	13.53	1.80	8443.1	12158055.	6754476.0	15197.6	0.	0.000	2.600	0.001
TOT AVG CUM			0.001			13.53	1.80	8443.1	12158055.	6754476.0	15197.6				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT	REAER	CBOD RATE	CBOD DECAY	ANBOD SETT	FULL SOD	CORR SOD	ORGN DECY	ORGN SETT	NH3 DECAY	DENIT SRCE	PO4 PROD	ALG PROD	MAC PROD	COLI DECY	NCM PROD	NCM DECY	SETT 1/DA
71	0.000	7.72	0.48	0.07	0.00	0.00	0.20	0.01	0.00	0.17	0.01	0.00	0.00	0.11	0.00	0.00	0.00	0.00	
20	DEG C	RATE	AVG 20	DEG C	RATE	0.41	0.05	0.00	0.00	0.01	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
* G/SQ M/D				** MG/L/DAY															

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/l	MACRO **	COLI #/100ML	NCM *		
71	0.000	28.60	0.6	955.2	0.0	6.08	3.33	3.33	0.84	0.21	0.24	1.29	0.09	10.4	0.0	0.	0.00		
* CM-I = cond umhos				CM-II =															
** G/CU M																			

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N	ALG SETT LIT P	ALG SETT LIT NEP TOT	ALG GROW 1/DA	ALG RESP 1/DA	A/P/R LIT N	MAC MAC MAC MAC	MAC MAC MAC MAC	MAC MAC MAC MAC	M/P/R GROW RESP	RESP RATIO					
71	0.000	0.83	0.53	0.14	0.34	0.69	0.75	0.72	0.24	0.29	0.15	1.57	0.00	0.00	0.00	0.00	0.00		
20	DEG C	RATE		0.20						0.80	0.10								
NOTE ON NITR PREF:		1. 0=NO3 ; 0.0=NH3																	

QUAL-TX calibration for Lake Cataouatche, LA
Adjusted Verification run

INPUT/OUTPUT LOADING SUMMARY

	FLOW CMS	DO KG/D	BOD KG/D	ORG-N KG/D	NH3-N KG/D	NO3-N KG/D	PHOS KG/D	CHL A KG/D	NCM
HEADWATER INFLOW	1.680	479.0	380.3	190.1	27.6	7.3	37.7	1451.5	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT		0.0	21475.0	1349.5	143.1	37.7	195.9	7534.1	0.0
WASTELOADS	8.720	4748.3	1973.9	987.0	0.0	0.0	0.0	0.0	0.0
WITHDRAWLS	0.000	0.0	0.0	0.0	-5465.1	-752.4	-190.0	-218.5	-80.1
OUTFLOW THRU LOWER BNDRY	-10.400	-5465.1	-2989.1	-752.4	-1250.7	-745.3	-329.1	-1307.2	-9344.6
DISPERSION THRU LOWER BNDRY		-5735.7	-1250.7						-3410.2
REFRACTION									0.0
BACKGROUND BENTHAL									
AEROBIC BOD DECAY									
BOD SETTLING									
ANABACTERIC BOD DECAY									
ORGANIC N HYDROLYSIS									
ORGANIC N SETTLING									
NH3 DECAY									
BACKGROUND NH3 SOURCE									
DENITRIFICATION									
PHOSPHORUS SOURCE									
ALGAE PHOTOSYNTHESIS									
ALGAE RESPIRATION									
ALGAE SETTLING									
MACRO PHOTOSYNTHESIS									
NCM DECAY									
NCM SETTLING									
TOTAL INPUTS	10.400	68831.3	23829.2	2526.6	2875.8	2403.8	342.3	245280.0	0.0
TOTAL OUTPUTS	-10.400	-68831.4	-23829.2	-2526.6	-2875.8	-2403.8	-342.3	-245281.0	0.0
NET CONVERGENCE ERROR	0.000	-0.1	0.0	0.0	0.0	0.0	0.0	-1.1	0.0

1 EXECUTION COMPLETED

APPENDIX T

Model Inputs for Projections

APPENDIX T. LAKE CATAOUATCHE MODEL INPUTS FOR PROJECTION

Table T.1. Projection Inputs for Hydraulics (Data Types 9 and 10).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Velocity coefficient, a	1	0.0062200	Same as adjusted calibration
	2	0.0057300	
	3	0.0053900	
	4	0.0001420	
	5	0.0000730	
	6	0.0000730	
	7	0.0000658	
Velocity exponent, b	1 – 7	1	
Depth coefficient, c	1	2.7	
	2	2.4	
	3	2.1	
	4	2.2	
	5	2.4	
	6	2.5	
	7	1.8	
Depth exponent, d	1 – 7	0	
Depth constant, e	1 – 7	0	
Dispersion coefficient (m ² /sec)	1-3	0.5	
	4-7	2.6	

Table T.2. Projection Inputs for Initial Conditions (Data Type 11).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Temperature, °C	1 – 7	31.2	90 th percentile daily water temperature for May - October
Salinity, ppt	1	0.70	Same as adjusted calibration
	2	0.69	
	3	0.67	
	4	0.52	
	5	0.80	
	6	0.99	
	7	1.01	
DO, mg/L	1	2.6	Same as adjusted calibration. Calibration values were more critical than 90 percent oxygen saturation at the 90 th percentile temperature for May – October.
	2	2.8	
	3	2.5	
	4	5.0	
	5 – 7	6.7	90 percent of dissolved oxygen saturation at the 90 th percentile temperature for May – October.
Ammonia N, mg/L	1	0.22	
	2	0.23	
	3	0.24	
	4	0.18	
	5	0.12	
	6	0.13	
	7	0.13	
NO ₃ + NO ₂ N, mg/L	1 – 7	0.05	
Phosphorus, mg/L	1	0.20	Same as adjusted calibration.
	2	0.21	
	3	0.22	
	4	0.15	
	5	0.08	
	6	0.02	
	7	0.04	
Chlorophyll, ug/L	1	8.5	
	2	14.8	
	3	21.0	
	4	13.0	
	5	5.0	
	6	28.0	
	7	22.8	

Table T.3. Projection Inputs for Kinetic Coefficients (Data Types 3, 6, 12 and 13).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Reaeration option	1 – 7	1	Same as adjusted calibration
Reaeration rate, K_2	1	0.24	Same as adjusted calibration
	2	0.28	
	3	0.31	
	4	0.42	Based on wind-aided surface transfer coefficient of 0.93 m/day calculated using long term average wind speed for August (calculations are included in Appendix V).
	5	0.39	
	6	0.37	
	7	0.52	
CBOD _u decay rate	1 – 7	0.05/day	Same as adjusted calibration
Organic N decay rate	1 – 7	0.01/day	
Ammonia N decay rate	1 – 3	0.05/day	
	4 – 7	0.10/day	
Total daily radiation	1 – 7	416 langleys	
Nitrogen half saturation constant	1 – 7	0.2 mg/L	
Phosphorus half saturation constant	1 – 7	0.03 mg/L	
Light half saturation constant	1 – 7	10 langleys per hour	
Algae max. growth rate	1 – 3	1.35/day	
	4 – 7	0.80/day	
Algae respiration rate	1 – 7	0.10/day	
Algae settling rate	1 – 3	0.5 m/day	
	4 – 7	0.2 m/day	
Secchi depth with no algae present	1 – 7	1.0 m	
Algae to chlorophyll ratio	1 – 7	0.06 mg algae / μg chlorophyll	
Conversion of settled algae to SOD	1 – 7	0.08 mg O ₂ per μg chlorophyll	

Table T.4. Projection Inputs for NPS Loads (Data Types 12, 13 and 19).

Parameter name or description	Reach	Value used in model	Data Source / Comment
Sediment oxygen demand, g/m ² /day	1	0.64	Reduced by 60% from adjusted calibration
	2	0.72	
	3	0.72	
	4	0.3	
	5	0	
	6	0	
	7	0	
Benthic ammonia, g/m ² /day	1	0.001	Reduced by 60% from adjusted calibration
	2	0.0014	
	3	0.001	
	4	0.01	
	5	0.01	
	6	0.0125	
	7	0.0075	
Benthic phosphorus, g/m ² /day	1	0.00252	Reduced by 60% from adjusted calibration
	2	0.00252	
	3	0.00252	
	4	0	
	5	0	
	6	0	
	7	0	
CBOD _u mass loads, kg/day	1	24	Reduced by 60% from adjusted calibration
	2	66	
	3	36	
	4	2000	
	5	3000	
	6	13280	
	7	2880	
Organic Nitrogen mass loads, kg/day	1	0.4	Reduced by 60% from adjusted calibration
	2	5.8	
	3	3.6	
	4	100	
	5	325	
	6	750	
	7	150	

Table T.5. Projection Inputs for Headwater (Data Types 20, 21, and 22).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Headwater Bayou Verret	Flow Rate	0.003 m ³ /sec	Default critical flow for summer per LTP
	Temperature	31.2° C	90 th percentile temperature for May – October (see Section 7.2).
	Specific conductivity	1250 : mhos	Same as adjusted calibration.
	DO	3.2 mg/L	Same as adjusted calibration. Calibration value was more critical than 90 percent oxygen saturation at the 90 th percentile temperature for May – October.
	CBOD _u	4.03 mg/L	Same as adjusted calibration.
	Organic N	1.19 mg/L	
	Ammonia N	0.22 mg/L	
	NO ₂ + NO ₃	0.05 mg/L	
	Phosphorus	0.20 mg/L	
	Chlorophyll	12 ug/L	

Table T.6. Projection Inputs for Wasteload (Data Types 24, 25, and 26).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Louisiana Cypress Lumber Canal	Flow rate	0.003 m ³ /sec	Default critical flow for summer per LTP
	Temperature	31.2°C	90 th percentile temperature for May – October (see Section 7.2)
	DO	1.47 mg/L	Same as adjusted calibration. Calibration value was more critical than 90 percent oxygen saturation at the 90 th percentile temperature for May – October.
	CBOD _u	4.03 mg/L	Same as adjusted calibration
	Organic N	1.19 mg/L	
	Ammonia N	0.22 mg/L	
	NO ₂ + NO ₃	0.05 mg/L	
Davis Pond Freshwater Diversion	Phosphorus	0.20 mg/L	
	Chlorophyll	12 ug/L	
	Flow rate	0.003 m ³ /sec	Default critical flow for summer per LTP
	Temperature	31.2 C	90 th percentile temperature for May – October (see Section 7.2)
	DO	6.7 mg/L	90 percent of dissolved oxygen saturation at the 90 th percentile temperature for May – October.
	CBOD _u	4.03 mg/L	Same as adjusted calibration
	Organic N	1.19 mg/L	
	Ammonia N	0.22 mg/L	
	NO ₂ + NO ₃	0.05 mg/L	
	Phosphorus	0.20 mg/L	
	Chlorophyll	12 ug/L	

Table T.7. Projection Inputs for Lower Boundary Conditions (Data Type 27).

Parameter name	Value used in model	Data Source / Comment
Temperature	31.2°C	90 th percentile temperature for May-October
Salinity	0.950 ppt	
Specific Conductivity	1695 : mhos	
DO	6.46 mg/L	
CBOD _u	4.18 mg/L	
Organic N	1.01 mg/L	Same as adjusted calibration.
Ammonia N	0.13 mg/L	
NO ₂ + NO ₃	0.05 mg/L	
Phosphorus	0.06 mg/L	
Chlorophyll	17.5 ug/L	